

LISMORE FLORA: FLOWERING PLANTS AND FERNS

BERNARD H. THOMPSON

Glenlussa, Ford, Lochgilhead, Argyll PA31 8RH

BACKGROUND AND SCOPE

The island of Lismore, part of the parish of Lismore and Appin and in the former administrative county of Argyll, forms a very small (0.6%) but valuable part of the Watsonian Vice-county Main Argyll, VC.98 (see Map - Figure 1).

Many habitats, resulting from the predominantly limestone geology, rich in plants and other groups such as Lepidoptera still survive. These are of great value not only in the context of the local vice-county but in a much wider, national, sense. Indeed the island has recently been designated an Environmentally Sensitive Area (ESA) while Bernera Island and the Lismore lochs had previously been notified as Sites of Special Scientific Interest (SSSIs).

No attempt has previously been made to document the varied and valuable habitats and flora and the following paper draws attention to these and brings together available plant records in the form of a checklist.

In addition to Lismore and Bernera the small non-tidal islands of Creag Island, Eilean Droineach, Eilean Dubh, Eilean na Cloiche, Eilean nan Gamhna, Eilean Ramsay, Inn Island, Pladda Island and Sgeir nan Tom, for which some records are available (P. Wormell 1986/1988), have been included. No records are available for Eilean Loch Oisair and Eilean Musdile. Eilean na Caorach, which lies largely in quadrant 94 NW, has been excluded. All vascular plants known to occur in the wild are included and, because they are a particularly valuable feature of the island lochs and fens, the Charophytes (Stoneworts) are very briefly covered. Planted trees have been excluded except when naturally regenerated specimens have been found in the wild.

TOPOGRAPHY, GEOLOGY AND CLIMATE

Lismore lies at the mouth of Loch Linnhe, roughly midway between Lorn and Morven (Plate 1, upper); its south-west end is at the meeting point of this large sea loch with the Firth of Lorn and the Sound of Mull. The long axis of the island coincides with the midline of Loch Linnhe - SW/NE.

With a total length of 15.3 km (9.5 miles) and a maximum width of 2.4 km (1.5 miles) the land area of the main island is 2177 ha (5380 acres). On its west side, 4km (2.5 miles) from the south end, lies the botanically important tidal island of Bernera with an additional land area of 42 ha (105 acres).

Lismore is low lying and generally the ridges and shallow troughs coincide with its long axis. The highest point, 127m (415 ft.), is reached on the ridge of Barr Mor towards the south end of the island. The shallow troughs house Lismore's three main water bodies: Loch Fiart, Kilcheran Loch and Loch Balnagown. In addition Killeen Loch is a quite extensive loch and fringing fen while elsewhere there are smaller areas of fen and swamp.

Because of its restricted width, catchments are limited and watercourses small and often slow-flowing. Springs and their associated flushes and runnels are frequent, particularly at the

foot of raised beach cliffs. Where these springs are highly calcareous tufa deposits have formed.

A very important feature of the island is its raised beach backed by cliffs of varying height. These raised beaches and cliffs virtually encompass the island, including Bernera.

Due to its relatively sheltered position the island's shore line, for much of its length, is one of gently shelving limestone rocks with shingle beaches infrequent and sandy beaches absent. Only at Fennachrochan bay in the north and at Salen in the west, where there are fairly land-locked conditions, have quite extensive areas of silty shingle and associated saltmarsh been able to develop.

Geologically the island is composed almost entirely of metamorphosed limestone of the Dalradian series notable for its very low magnesia (MgCO₃) content. Basaltic intrusions in the form of dykes are frequent though generally small; larger ones occasionally occur as on the coast north-west of Loch Fiart at Grid ref. 799383. The influence of these dykes on the vegetation is discussed in the section on woodland. By contrast Eilean Dubh is composed of acid quartzite schist, while only 4.5km distant, across Loch Linnhe in VC.97, the Glensanda super-quarry is steadily devouring the Morven granite. Only at the north end of Lismore are there significant deposits of boulder clay and overlying acid peat. Elsewhere the limestone is close to the surface over large areas, often outcropping, and in valley bottoms deposits of fen peat have formed.

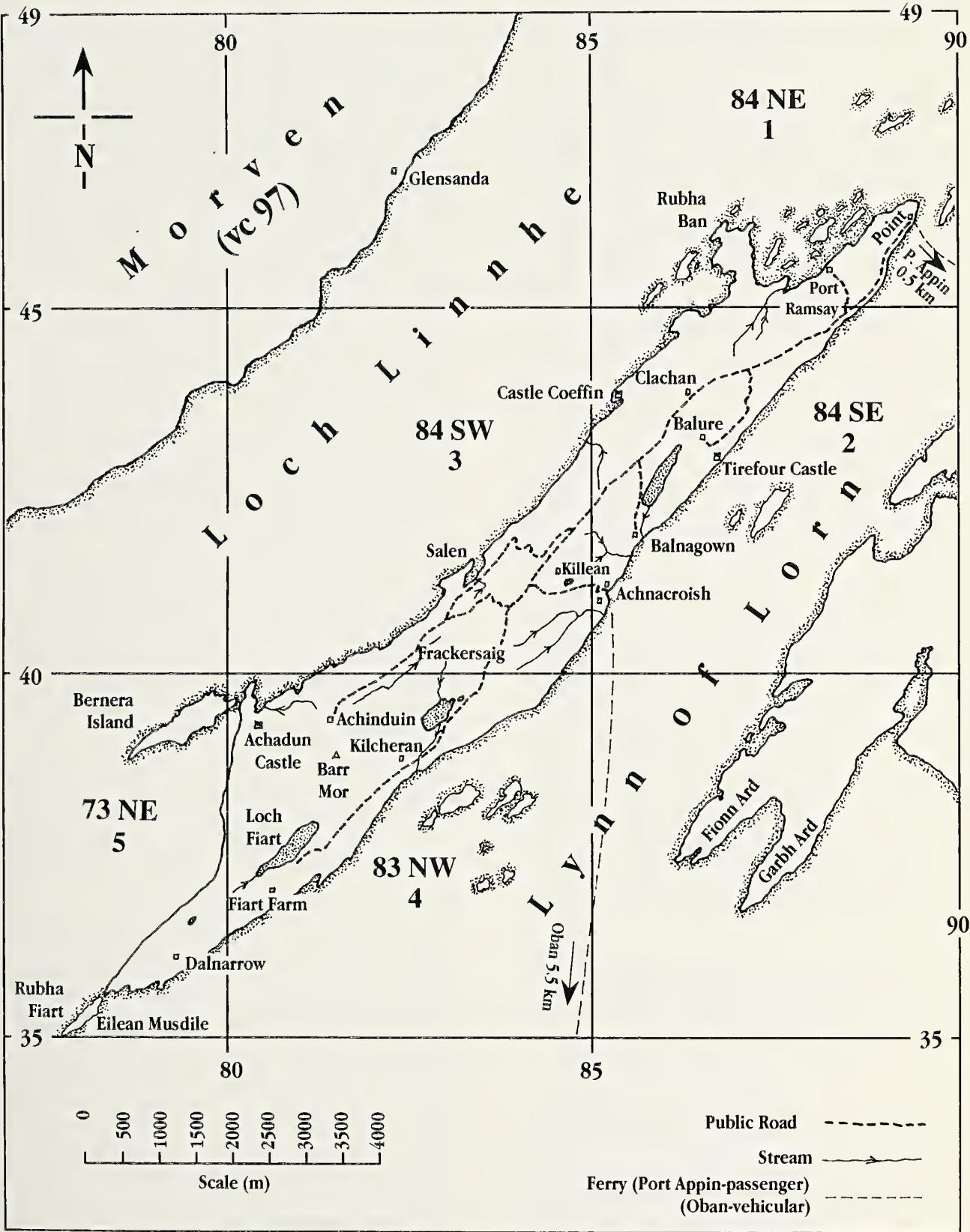
Being on the Atlantic coast and influenced by the Gulf Stream, the climate of Lismore could be described as equable. Annual rainfall at Frackersaig during the seven year period 1985-1991 averaged 1847mm (72.7 inches). Lismore is particularly exposed to the prevailing south-west winds which sweep up the Firth of Lorn, and similarly to the less frequent, but colder, north-easterlies blowing down Loch Linnhe.

HISTORICAL AND PRESENT DAY LAND USE

The name Lismore is generally thought to be derived from the Gaelic *lios mór*, the great garden, because of its particularly fertile calcium-rich soils. It has been suggested that prior to the sixth century the island was entirely covered by forest (Carmichael, 1948). Modern pollen analysis is highly desirable to reveal woodland history as it is probable that pre-historic people much influenced the vegetation. Certainly in the more recent past the island became, in the agricultural sense, a fertile place and by all accounts much corn was grown.

As far back as 1594, Sir Donald Munro, High Dean of the Isles, described the island as "commodious for nolt (cattle) and horses, but best for cornes" and he added that there grew upon it "the best beir (winter barley) in the Isles" (Carmichael, 1948). Lismore did not escape the effects of the Clearances which probably started to have their effect early

Figure 1 Lismore (Main Argyll, vc 98)



in the nineteenth century. "On the island of Lismore there was considerable evidence presented to the Napier Commission concerning clearances from the Kilcheran estate just before the famine (1846) tenants were pressed to convert their arable to pasture so that when the clearance was carried out the land was ready for the landlord's stock" (Turnock *et al.*, 1977).

Today there is very little arable land and the resulting loss in cornfield and other arable weeds must have been enormous (see section on miscellaneous habitats). Population peaked in 1831 when the census showed 303 houses, 317 families and a total of 1790 people. In 1947 the population was down to only 206 (estimated), and the 1991 census recorded just 140 permanent residents. Present day farming on Lismore is almost entirely devoted to the raising of sheep and cattle. Some hay is grown but mainly in the form of silage and many of the traditional hay meadows are now lost.

The first botanical observation on the island seems to have been made by Reverend John Lightfoot when, on 11th August 1772, he and his party "landed on the isle of Lismore to see a Danish fort" (Bowden, 1989). On this occasion Lightfoot noted "*Caucalis arvensis*... in cornfields. I observed it on the island of Lismore..." (Lightfoot, 1777).

Apart from references to the famed Bernera Yew the next botanical information is provided by Macvicar (1899). He must have visited the island prior to that year, perhaps on more than one occasion. His short paper suggests that, while much has probably changed little over the ensuing century, such "colonists" as *Chrysanthemum segetum*, *Euphorbia helioscopia*, *Lamium purpureum*, *Sinapis arvensis* and *Viola arvensis*, now rare plants, were even then much more frequent. G. West visited the three major Lismore Lochs, prior to 1905, as part of a more general survey of a number of Scottish lochs.

The next botanical visitors to supply records were W.A. Sledge and E.C. Wallace in 1949. It was they who first recorded *Juncus compressus* "west of Balnagown".

Since the 1960's the island has had much more frequent visits from a small number of botanists, notably A.A.P. Slack, A. McG. Stirling and P. Wormell. Even so, parts of the island were, apparently, only looked at superficially for it was not until c.1991 that the quite large population of *Dryas octopetala* was discovered near the south end of the island. In the same year *Melampyrum sylvaticum* was first noted, this time in the north-west.

Since then Alison Brooks has made some remarkable discoveries, particularly on Killean Farm. Unfortunately knowledge of these came too late to be included in the *Argyll Checklist* (Rothero & Thompson, 1994).

THE FLORA - AN OVERVIEW

No comparable areas of low-level limestone, largely free from masking drift deposits, occur in Main Argyll.

Free from industrial development, modern intensive agriculture and tourist developments, many valuable habitats have survived, and it is one of the purposes of this paper to draw attention to their presence in the hope that they will remain undamaged in the future.

The habitats of greatest value are the calcareous lochs and fens; streams; springs and flushes; unimproved limestone grassland; limestone outcrops and cliffs, particularly in the

context of the raised beaches; and mixed broad-leaved scrub woodland.

Other habitats of lesser importance are miscellaneous wetlands; heaths; saltmarshes; arable and garden ground; roadsides; and disused quarries. All these will later be considered in some detail.

Much of the island consists of "improved" grassland, not considered above. These grasslands are species-poor, but transitional areas occur between these and unimproved grassland wherever physical barriers exist to the use of machinery or to the grazing of livestock, for example where limestone reaches the surface to break-up the grasslands, along the irregular margins of scrub, and at dangerous cliff-tops fenced-off to grazing animals. Before considering habitats in more detail it is worth pondering over some more general aspects of the island's flora.

No British Red Data Book species (those species restricted to 15 or fewer 10 kilometre squares in Britain) occur on Lismore.

Eight scarce plants (those species restricted to 16 - 100 10 kilometre squares in Britain) occur on Lismore: *Dryas octopetala*, *Hammarbya paludosa*, *Melampyrum sylvaticum*, *Orobancha alba*, *Potamogeton coloratus*, *P. filiformis*, *Potentilla neumanniana* and *Sorbus rupicola*.

Eight Main Argyll plants are apparently restricted to Lismore: *Anthemis arvensis*, *Fumaria officinalis*, *Papaver dubium*, *Polypodium cambricum*, *Potamogeton coloratus*, *P. filiformis*, *Saxifraga tridactylites*, and *Tragopogon porrifolius*.

Botanical visitors to Lismore are particularly impressed by the abundance of *Carex diandra* and *C. viridula* subsp. *brachyrrhyncha* in the drier parts of fens, and of *Helianthemum nummularium* in many places in limestone grassland and on rock outcrops. The latter plant probably grows nowhere else in the west of Scotland north of Ayrshire, though it occurs sparingly at Port Appin close to the north end of Lismore.

Other Main Argyll plants have their main populations on Lismore: *Arenaria serpyllifolia*, *Briza media*, *Centaureum erythraea*, *Clinopodium vulgare*, *Epilobium parviflorum*, *Geranium columbinum*, *Gymnadenia conopsea*, *Koeleria macrantha*, *Melampyrum sylvaticum*, *Myriophyllum spicatum*, *Potentilla neumanniana*, *Sagina nodosa*, *Sedum acre*, *Sorbus rupicola* and *Veronica anagallis-aquatica*.

Lismore plants which are essentially western in their distribution are: *Anagallis tenella*, *Hymenophyllum tunbrigense*, *H. wilsonii*, *Hypericum androsaemum*, *H. elodes*, *Orobancha alba*, *Osmunda regalis*, *Pinguicula lusitanica*, *Schoenus nigricans*, *Scutellaria galeaifolia*, *S. minor* and *Sedum anglicum*.

Only four plants which are characteristically eastern in distribution occur on Lismore, and all are rare: *Fumaria officinalis*, *Lamium album*, *Thlaspi arvense* and *Urtica urens*.

Apart from Rock-rose a considerable number of Lismore plants are at or near the northern limit of their range in Britain: *Adoxa moschatellina*, *Alisma plantago-aquatica*, *Anthemis arvensis*, *Apium graveolens*, *Arum maculatum*, *Berula erecta*, *Briza media*, *Carex vesicaria*, *Ceterach officinarum*, *Chrysoplenium alternifolium*, *Clinopodium vulgare*, *Epipactis helleborine*, *Geranium columbinum*, *G. lucidum*, *G. pratense*, *Hypericum maculatum*, *H. perforatum*, *Juncus compressus*, *Leontodon hispidus*, *Lythrum salicaria*, *Moe-*

lringia trinervia, Mycelis muralis, Polypodium cambricum, Potamogeton coloratus, P. lucens, Potentilla neumanniana, Salix purpurea, Saxifraga granulata, S. tridactylites, Solanum dulcamara, Taxus baccata, Tragopogon porrifolius, and Veronica montana.

Because of the calcareous conditions a number of plants, which are frequent or common in the more acid conditions on the mainland, appear to be absent on Lismore: Carex laevigata, Cytisus scoparius, Empetrum nigrum, Huperzia selago, Lathyrus linifolius subsp. montanus, Lycopodium clavatum, Melampyrum pratense and Myriophyllum alterniflorum.

Other fairly common plants of acid mainland sites are rare on Lismore: Carex pallescens, Eriophorum vaginatum, Galium saxatile, Gymnocarpium dryopteris, Juncus squarrosus, Lobelia dortmanna and Veronica officinalis.

Although usually associated with acid soils, Calluna vulgaris is common on Lismore but the limy soils and heavy grazing keep it suppressed and inconspicuous in many places.

Coastal species are rather poorly represented. Bolboschoenus maritimus and Honckenya peploides are both absent while Tripleurospermum maritimum is infrequent and Silene uniflora rare.

Several plants, tolerant of basic conditions, have not yet been found on Lismore but could well occur: Ajuga pyramidalis, Anagallis minima, Carex disticha, Carlina vulgaris, Cephalanthera longifolia, Festuca gigantea, Milium effusum, Neottia nidus-avis, Pimpinella saxifraga and Ranunculus auricomus.

Conifer plantations are fortunately small and few in number and self-sown conifers very rare. Rhododendron ponticum is absent and other introductions thankfully few. Juncus tenuis has apparently not yet reached the island, while Epilobium brunnescens is rare.

Fallopia japonica, noted in only three places, is unlikely to become invasive on the island's base-rich soils. A prudent approach would be to remove the plants now.

Apart from the decline in arable weeds there are very few other species which we know to have become diminished or lost. Hypericum elodes is the most intriguing. Macvicar (1899) described it as "rather common". Until recently it was thought to have become extinct but has now been refound - very sparingly at Killean Farm.

HABITATS

Lochs and Fens (Back cover, upper)

Darling and Boyd (1964) wrote: "The shallow limestone lochs of Lismore have the richest flora of any Highland lochs ...", using "highland" in its broadest sense. While the Lismore lochs do have a rich aquatic flora they are surpassed by some of the Herbridean lochs where the range of substrates is wider (Preston, C.D. pers. comm.).

The major Lismore lochs are Loch Balnagown (c. 1000m x max.200m), Kilcheran Loch (c.700m x max.250m) and Loch Fiart (c.1000m x max. 200m). All lie in shallow valleys at an elevation of 20 - 30 m above sea-level. Fringing fens occur at both ends of the first two lochs but at Loch Fiart this is restricted to the south end. Phragmites australis is the most conspicuous member of the fen community and in former times this was cut, at least at Loch Balnagown, "... for economic purposes" (West, 1905) - presumably for thatching.

SPECIES	TABLE 1			Niche
	Loch Balnagown	Kilcheran Loch	Loch Fiart	
Alisma plantago-aquatica	-	-	-	EA
Carex curta	-	+	+	SF
C. diandra	+	+	+	SF
C. nigra	+	+	+	SF
C. paniculata	+	+	-	SF
C. rostrata	+	+	+	SF
C. vesicaria	-	+	-	SF
C. viridula subsp. brachyrryncha	+	+	+	SF
Cladium mariscus	-	+	-	SF
Eleocharis palustris	+	+	+	EA
Equisetum fluviatile	+	+	+	EA
Glyceria fluitans	+	-	+	EA/FA
G. notata	-	+	+	EA
Hippuris vulgaris	+	+	+	EA
Littorella uniflora	+	+	+	SA
Menyanthes trifoliata	+	+	+	EA
Myriophyllum spicatum	+	+	+	SA/EA
Nuphar lutea	+	+	+	FA
Nymphaea alba	+	+	+	FA
Phragmites australis	+	+	+	RF
Polygonum amphibium (aquatic form)	+	-	-	FA
Potamogeton berchtoldii	+	+	+	SA
P. coloratus	+	+	+	SA
P. filiformis	+	+	+	SA
P. lucens	-	-	+	SA
P. natans	+	+	+	FA
P. perfoliatus	-	+	+	SA
P. polygonifolius	-	+	-	EA/SA
P. praelongus	-	+	+	SA
Potentilla palustris	+	+	+	FA/SF
Schoenoplectus lacustris	+	+	+	EA
Sparganium emersum	-	+	+	EA/FA
S. erectum	+	+	+	EA
Utricularia vulgaris agg.	+	+	+	SA

* = no recent records; EA = Emergent Aquatic; FA = Floating Aquatic; RF = Reed Fen; SA = Submerged Aquatic; SF = Sedge Fen. Note: some overlapping occurs between these categories.

Killean Loch, near Achnacroish, is much smaller than the above, but with its extensive fringing Phragmites fen, is another valuable site. So too is the even smaller loch between Loch Fiart and Dalnarrow. There is a species-rich fen, less calcareous than the above, below Argyll Cottage and fragments of fen occur in a few other places.

At Killean Loch, and noticeable even during the last four years, there has been considerable encroachment of Phragmites with consequent loss of open water area (A.M.L. Brooks, pers. comm.). At Loch Balnagown also the area of Reed fen is now more extensive than formerly (L.J.M. Stewart, pers. comm.).

The water of the three main lochs is notable for both its clarity and lime content. West (1905) remarks "... one may look over the side of a boat and see the bottom through twenty-five feet of water." He also quotes an analysis by W.E.

Tetlow in which suspended solids amounted to 191 parts per million of which 151 were calcium carbonate.

According to the *Statistical Account* of 1791-1799 (p.357) "The prodigious strata of marl, from ten to sixteen feet deep, in the bottom of all the lakes in Lismore, may be ranked among the curiosities of this parish".

Because of the lime rich water the lochs have an abundance of *Charophytes* (Stoneworts), usually heavily encrusted with lime.

Table 1, while not exhaustive, shows most of the aquatic and sedge fen species of higher plants.

This table indicates that Kilcheran Loch is the most species-rich, Loch Fiart almost as diverse, while Loch Balnagown has several species absent including four *Potamogeton* spp.

Potamogeton coloratus and *P. filiformis* occur nowhere else in VC 98, while *Cladium mariscus*, *Glyceria notata*, *Myriophyllum spicatum* and *Potamogeton lucens* are rare, or very rare, elsewhere in Main Argyll.

Carex limosa, absent from the three lochs, occurs only in the fen below Argyll Cottage. *C. aquatilis*, noted by West (1905), appears to have been lost.

Streams

Lime-rich streams are frequent but, draining from small catchments, are small and short in length. Only one, Allt a' Mhuilinn, bears a name on the 1:25,000 maps.

Streams are often slow-flowing and valuable habitats for aquatic, emergent and stream-side plants. Where they approach the coast they are usually faster flowing as they cut down through the raised beaches. Occasionally small ravines are the result as at Achnacroish and above Salen bay. Slower flowing sections are frequently fringed by areas of mire.

Potamogeton polygonifolius is a frequent aquatic of these slow-flowing sections while *P. coloratus* occasionally occurs as in the stream south-west of Achnacroish and in the outflow from Kilcheran Loch.

Emergent species which are more numerous and characteristic of these are *Glyceria fluitans*, *Mentha aquatica*, *Myosotis laxa* subsp. *caespitosa*, *Oenanthe crocata*, *Rorippa nasturtium-aquaticum* agg. and *Veronica anagallis-aquatica*, while *Hippuris vulgaris*, *Mimulus x robertsii* and *Sparganium erectum* occur occasionally.

The outflow stream from Loch Balnagown has *Apium nodiflorum* in plenty while the stream below Cameron Cottage has *Berula erecta*, the latter at its only known Lismore site. *Mentha x piperita* has established itself in the last-mentioned stream and also at Dalnarrow.

Characteristic stream-side species are *Caltha palustris*, *Epilobium parviflorum*, *Filipendula ulmaria*, *Geum rivale*, *Hypericum tetrapterum*, *Iris pseudacorus*, *Ranunculus acris* and *Senecio aquaticus*.

Several streams have populations of *Petasites hybridus* which seems to favour faster flowing and stony sections, often close to the sea.

Springs and Flushes

Springs occur most frequently along the base of coastal raised beach cliffs but also at the base of steep slopes, and in other places, inland. The flushes that they produce take a variety of forms.

In its simplest form a strong spring will produce a runnel flowing directly to the sea or a nearby stream. However, lateral seepage, creating a broad flush, often occurs unless the outlet is maintained as a ditch, as is frequently the case on well tended agricultural land.

More commonly, particularly along coasts, springs are small and close together creating large areas of seepage.

These large seepage areas have resulted in peat formation and in some areas, for example south of Sloc a' Mhuilinn, have become partially eroded creating vertical zoning of the vegetation. The uppermost areas are the least alkaline, or mildly acidic, and here such plants as *Carex echinata*, *C. panicea*, *Dactylorhiza maculata* subsp. *ericetorum*, *Drosera rotundifolia*, *Eriophorum angustifolium*, *Narthecium ossifragum*, *Pedicularis sylvatica*, *Pinguicula vulgaris* and, more rarely, *Platanthera bifolia* occur. The faces of the eroded peat are the places to look for the elusive *Pinguicula lusitanica*.

At lower levels of the eroded peat conditions are much more calcareous and *Schoenus nigricans* can be dominant. A wealth of other species occur in these base-rich flushes: *Anagallis tenella* (rarely), *Carex dioica* (occasionally), *C. hostiana*, *C. pulicaris*, *C. viridula* subsp. *branchyrryncha*, *Centaureum erythraea* (in drier places), *Dactylorhiza incarnata*, *D. purpurella*, *Eleocharis quinqueflora*, *Eriophorum latifolium*, *Parnassia palustris*, *Sagina nodosa*, *Samolus valerandi*, *Saxifraga aizoides* (in stony and rocky places), *Selaginella selaginoides* and *Triglochin palustre* to name some of the more interesting.

Where the springs are strong, and well defined runnels result, *Rorippa nasturtium-aquaticum* agg. and *Veronica becabunga* are often plentiful and *Stellaria uliginosa* also frequently occurs.

In hollows and flatter areas flushes will merge with areas of wet grassland or marsh where such additional species as *Caltha palustris*, *Epilobium palustre*, *E. parviflorum*, *Hydrocotyle vulgaris*, *Lychnis flos-cuculi*, *Pedicularis palustris* and *Ranunculus flammula* are likely to be found.

Limestone Grassland (Unimproved) (Plate 1, lower)

These grasslands have survived in areas where machine access is difficult or impossible, where cultivation and use of artificial fertilisers has not taken place, and where grazing is less intense.

They include grassland pockets among outcropping limestone; open areas on the edge of scrub woodland; areas fenced-off to grazing animals at the top of cliffs, around quarries and in a few other places; steep slopes at the base of cliffs, etc.. In a few cases sites may have survived as a result of sympathetic land-management in more recent times. Some areas of particularly valuable grassland have been identified and are being managed to conserve their botanical interest.

Many such grassland areas still survive but are perhaps most frequent in the south. Much of Bernera Island is a splendid example of this type of habitat. A tidal island of only 42 ha it has in the past enjoyed a sympathetic grazing regime while the terrain is too rugged for machine access. Nearly 250 vascular plants, including critical groups, have so far been recorded on this small island. Most of the Lismore grassland species mentioned below also occur on Bernera. Characteristic of dry grasslands, and often plentiful, are *Achillea millefolium*, *Campanula rotundifolia*, *Galium*

verum, *Helianthemum nummularium*, *Linum catharticum*, *Lotus corniculatus*, *Luzula campestris*, *Pilosella officinarum*, *Plantago lanceolata*, *Potentilla erecta*, *Rhinanthus minor* and *Thymus polytrichus* subsp. *britannicus*.

Less frequent, but locally plentiful, are *Antennaria dioica*, *Anthyllis vulneraria*, *Carex caryophylla*, *Daucus carota*, *Helictotrichon pubescens*, *Koeleria macrantha*, *Plantago maritima* and *Polygala vulgaris*.

Smaller, and more scattered, populations of *Centaureum erythraea*, *Galium boreale*, *Gentianella campestris*, *Potentilla neumanniana* and *Ranunculus bulbosus* occur, while *Dryas octopetala* is restricted to three small areas at the south end of Lismore and a tiny population on Bernera.

Common plants of damper grasslands are *Bellis perennis*, *Carex ovalis*, *Centaurea nigra*, *Conopodium majus*, *Cynosurus cristatus*, *Euphrasia officinalis sensu lato*, *Lathyrus pratensis*, *Prunella vulgaris*, *Ranunculus acris*, *R. ficaria*, *R. repens*, *Rumex acetosa*, *Succisa pratensis* and *Trifolium pratense*. *Briza media* and *Salix repens* are locally plentiful in both dry and damp grassland.

Damp grasslands are also a rich habitat for orchids *Coeloglossum viride* (rare), *Dactylorhiza fuchsii*, *D. maculata* subsp. *ericetorum*, *Gymnadenia conopsea* (all three locally plentiful), *Listera ovata* (occasional) and *Orchis mascula* (frequent). Recently a tiny population of *Pseudorchis albida*, an orchid normally associated with more upland areas, has been found in unimproved grassland at Killeen Farm.

Limestone Outcrops and Cliffs

Limestone outcrops and small crags occur inland over the whole of Lismore. Coastal raised beach cliffs virtually encompass the island and are generally higher and more impressive than inland crags. Steep slopes at the base of these crags and cliffs are frequently colonised by scrub woodland.

Rock detritus is also sometimes plentiful at the base of cliffs as below Drùim Mor in the south-west. To some extent this provides an extension of the cliff-ledge habitats above. Soil pockets on large boulders are particularly favoured by *Arenaria serpyllifolia*, *Geranium lucidum*, *Saxifraga tridactylites* and, rarely, *Valerianella locusta*.

Sheltered recesses among the detritus provide homes for plants more commonly associated with woodland such as *Adoxa moschatellina*, *Allium ursinum*, *Mercurialis perennis* and *Circaea x intermedia*.

Drier limestone outcrops and cliff ledges are home to numerous species many of which also grow in drier limestone grassland. These include *Anthyllis vulneraria*, *Campanula rotundifolia*, *Centaureum erythraea*, *Dryas octopetala*, *Galium boreale*, *G. verum*, *Gentianella campestris*, *Geranium columbinum*, *G. lucidum*, *G. molle*, *Helianthemum nummularium*, *Koeleria cristata*, *Orchis mascula*, *Polygala vulgaris*, *Potentilla neumanniana*, *Saxifraga tridactylites*, *Sedum acre*, *S. anglicum* and *Thymus polytrichus* subsp. *britannicus*.

Cliffs along the east coast receive more sun than those in the west. For this reason they are drier and there is less development of scrub woodland than in the west, factors which have a considerable influence on plant distribution.

Ledges of the higher coastal cliffs are often inaccessible to grazing animals and are thus home to some of the island's most interesting plants.

Only two plants are restricted to the eastern cliffs, namely *Clinopodium vulgare* and *Polypodium cambricum* though the former does extend round the north coast to Glas Dhruim. Several species appear to be confined to the western cliffs: *Hymenophyllum wilsonii* (also very locally inland), *Melica nutans*, *Populus tremula*, *Sedum rosea*, *Sorbus rupicola*, *Taxus baccata*, *Thalictrum minus* (also at one inland site) and *Vicia sylvatica*.

Plants which occur on both eastern and western cliffs, but apparently rare or absent inland, include *Asplenium marinum*, *Cotoneaster integrifolius*, *Eupatorium cannabinum*, *Lapsana communis*, *Prunus avium*, *Rosa pimpinellifolia*, and *Sonchus asper*.

The many species which occur on both coastal and inland crags include *Asplenium adiantum-nigrum*, *A. ruta-muraria*, *A. trichomanes*, *Cystopteris fragilis*, *Hieracium* spp. (particularly on coasts), *Hypericum androsaemum*, *Plantago maritima*, *Phyllitis scolopendrium*, *Polystichum aculeatum*, *Rubus saxatilis*, *Solidago virgaurea* and *Ulmus glabra*.

Occasionally lime-rich water seeps plentifully down coastal cliff-faces with resultant tufa formation. *Schoenus nigricans* can be plentiful in such places "cascading" down the cliff to the flatter ground below. Cliff ledges in such situations are often colonised by large stands of *Eupatorium cannabinum*.

Mixed Broad-leaved Scrub Woodland

Climax vegetation of temperate broad-leaved woodland must once have covered all of Lismore except on the most skeletal soils of exposed ridges and in very wet valleys. Historical evidence suggests that this was indeed the case.

Remnants of this former woodland are now restricted to (a) West Coast. Narrow bands along the base of raised beach cliffs and other west-facing scarps from Glas Dhruim to Castle Coeffin; above Salen bay; Frackersaig; north of Bagh Clach an Dobhrain. (b) East coast. Below raised beach cliffs for a limited distance south of Port Kilcheran. (c) Inland. Some rocky scarps and knolls between Kilcheran and Frackersaig.

There is no woodland on the east coast south of (b) above, or north of it to Achnacroish. North of the last place there are woodland fragments but they are much influenced by man with Sycamore, and some Beech, and usually a species-poor ground flora.

There is some evidence that in recent times woodland cover was even more limited than it is today and that some natural recolonisation of denuded sites has occurred during the last 50 to 100 years. This could be supported by some woodland areas being rather species-poor suggesting they are of more recent origin.

Planting of native broad-leaves has recently been undertaken below the cliffs south of Salen and further similar projects would enhance the island's tree cover.

A wide range of woodland species occur with composition dependent on nature of soil, aspect, moisture, grazing pressure etc..

The Ash-Hazel wood at Port nan Leadaig, on the coast near Frackersaig, is fairly typical of this type of wood on a lime-rich soil and in an open situation. On its fringes there is some Blackthorn and Raspberry scrub and within *Allium ursinum* is abundant and *Mercurialis perennis* plentiful. *Anem-*

one *nemorosa*, *Chrysoplenium oppositifolium*, *Conopodium majus*, *Crataegus monogyna*, *Crepis paludosa*, *Deschampsia cespitosa*, *Filipendula ulmaria*, and *Primula vulgaris* are frequent species while *Circaea x intermedia*, *Geranium robertianum*, *Geum rivale*, *Lysimachia nemorum*, *Oxalis acetosella*, *Ranunculus ficaria*, *R. repens* and *Sorbus aucuparia* occasional.

In more shaded woodland, ferns such as *Athyrium filix-femina*, *Dryopteris affinis*, *D. dilatata* and *D. filix-mas* become more prevalent. This is particularly so in parts of the north-west and inland where volcanic intrusions have resulted in the formation of acid soils. Parts of the woodland south of Port na Moralachd are a good example. Here Birch and Rowan are a more important element and *Luzula sylvatica* can be plentiful while there are good populations of *Blechnum spicant*, *Hymenophyllum wilsonii*, *Luzula pilosa*, *Phegopteris connectilis* and *Vaccinium myrtillus*. These species also occur in part of the woodland west of Kilcheran Loch and here *Gymnocarpium dryopteris* and *Hymenophyllum tunbrigense* occur very sparingly.

Melampyrum sylvaticum, only recently discovered, shows a preference for Hazel dominated woodland on steep, often rocky, slopes. Elsewhere in Britain it often occurs at higher elevations, usually under Birch, and often associated with *Melampyrum pratense* which does not appear to grow on Lismore. Four orchids occur in these woodlands: *Dactylorhiza fuchsii* - in moist open areas, *Epipactis helleborine* - very rare in the north-west, *Listera ovata* - frequent, and *Orchis mascula* - frequent.

Four other plants are rare or local: *Adoxa moschatellina* - local, *Chrysoplenium alternifolium* - very scarce in north-west, *Moehringia trinervia* - very scarce, and *Pyrola minor* - only one plant.

Many other species, not mentioned above are common or frequent and can be found in the Checklist.

Few other tree species occur in these woodlands.

Fortunately Sycamore is still infrequent in the best woodland remnants as already defined; Alder is very local on wet woodland fringes, as at Castle Coeffin; Elder occurs on the north side of Glas Dhuir and very occasionally elsewhere; Gean is very local; Goat Willow frequent; Sessile and Hybrid Oak both rare; Wych Elm occasional in damp rocky places.

Miscellaneous

Miscellaneous wetlands: scattered wet areas occur which are inappropriate to include under fens or flushes. One such area lies south-west of Clachan and is fenced-off to livestock. Now modified by drainage it was presumably a small fen. It is now dominated by *Carex rostrata* with scattered bushes of *Salix cinerea* and *S. x rubra*. This is one of only three sites for *Carex curta* but overall it is species-poor.

South of the Port Ramsay road lies an area of *Juncus effusus/acutiflorus* - *Galium palustre* rush-pasture which is one of rather few sites for *Viola palustris*.

A similar area occurs south of the ruined Fiart Farm. Here there are scattered hummocks with *Drosera rotundifolia* and in the lowest lying areas, where drainage has at one time been attempted, bands of *Carex rostrata* swamp have developed.

Other areas of rush pasture occur particularly in the southern half of the island.

Heath: the *Dryas* community of Druim Mor is the same as that defined in Rodwell as *Dryas octopetala* - *Carex flacca* heath. However it is there included with calcicolous grassland and the same approach has been adopted here.

Calluna dominated heath is rarely found on Lismore but on the ungrazed cliff-top W.N.W. of Baleveolan there is a sizeable area of rank heath. Other species occurring with it are *Anemone nemorosa*, *Betula pubescens*, *Corylus avellana*, *Filipendula ulmaria*, *Luzula sylvatica* (locally plentiful), *Orchis mascula*, *Primula vulgaris*, *Salix aurita* and *Vaccinium myrtillus*. Communities similar to this occur in places on the scarp north of Castle Coeffin.

There is some development of heath on the south-east side of Loch Fiart, probably the result of acid soils being able to form over hard igneous intrusions.

Erica cinerea is occasionally quite plentiful over very limited areas in dry and exposed situations, often at the top of raised beach cliffs, mainly at the north and south ends of the island.

Examples of wet heath are infrequent. On the north side of the Port Ramsay road is a small and somewhat modified example of *Scirpus (Trichophorum) cespitosus* - *Erica tetralix* wet heath. Both these plants are rare on Lismore as are *Eriophorum vaginatum* and *Juncus squarrosus* which also occur.

East of Fiart Farm is another area of wet heath but modification by drainage may have resulted in the disappearance of all four species mentioned above.

Saltmarsh: the two principal examples are in the Port Ramsay-Fennachrochan area and at Salen. Small fragments occur occasionally elsewhere. Floristically they are poor with the most notable species being *Blasmus rufus*, *Carex extensa*, *Oenanthe lachenalii* and *Salicornia* sp. Commoner species are *Armeria maritima*, *Aster tripolium*, *Carex distans*, *Juncus gerardii*, *Plantago maritima*, *Spergularia media* and *Triglochin maritimum*.

Arable and Garden ground: prior to 1990 there were few records of arable weeds which at one time, when there was widespread cultivation, must have been a feature of the island's fields of corn and other crops.

During the early 1990's a small area at Killean Farm was ploughed, after an interval of over thirty years, to establish a native tree nursery. Alison Brooks reports that the annual array of flowers has been a constant surprise as seeds which must be capable of dormancy over long periods, come to the surface and germinate.

The list of species is remarkable with several new to Main Argyll, recorded for the first time in many years, or rare in the vice-county. These are: *Anagallis arvensis*, *Anthemis arvensis*, *Avena fatua*, *Chenopodium rubrum*, *Chrysanthemum segetum*, *Euphorbia helioscopia*, *E. peplus*, *Fumaria muralis*, *F. officinalis*, *Galeopsis speciosa*, *Lamium album*, *L. confertum*, *L. hybridum*, *Papaver dubium*, *Potentilla reptans*, *Silene latifolia* subsp. *alba*, *Thlaspi arvense*, *Tragopogon porrifolius*, *Urtica urens*, *Veronica agrestis*, *Vicia sativa* subsp. *sativa*, *Viola arvensis* and *V. tricolor* subsp. *tricolor*.

As might be expected the variety of these weeds has declined as the seed 'bank' becomes diminished and most are likely to disappear altogether as the rampant Corn Spurrey, Hemp-nettle and Redshank take-over. *Tragopogon* and *Vicia*

sativa have probably already been lost and several others were not seen in 1995.

The arable field is uncooperative - a quadrant boundary runs through its middle!

Roadsides: a range of habitats occur here from unimproved limestone grassland, with for example *Briza media* and *Gymnadenia conopsea*, through rough grassland and scrub, to sluggish ditches with *Minulus x robertsii* and *Rorippa nasturtium-aquaticum* agg. There is even saltmarsh at the edge of the rough public road round Salen bay.

A roadside retaining-wall is the only island site for *Ceterach officinarum* and the small colony of *Arum maculatum* is among scrub at the roadside.

Roadsides are quite frequently habitats for introduced species which become established as a result of the tipping of garden waste. *Claytonia sibirica*, *Crocoshia x crocosmiflora*, *Lysimachia punctata* and *Veronica filiformis* are examples.

Disused quarries: limestone was formerly quarried on Lismore and exported. The quarry at Salen was a particularly large one with smaller ones at Port Kilcheran, Port na Moralachd and Port Ramsay. Production ceased some sixty years ago. The long abandoned workings are now, in effect, limestone outcrops and cliffs. At Salen however, the particularly high and steep faces are still unstable but nevertheless they support good Hawkweed colonies.

Old buildings at the quarries make a useful habitat for a number of plants, particularly the ferns *Asplenium rutamuraria*, *A. trichomanes*, *Cystopteris fragilis* and *Phyllitis scolopendrium*. Other plants which have taken advantage of the old buildings are *Arabis hirsuta* and *Erinus alpinus* (at Port Kilcheran) and *Cotoneaster integrifolius* (at Salen).

CHECKLIST

Botanical records for Main Argyll (VC 98) are kept on a quadrant basis (5 x 5 km. squares) and this practice has been continued in the following checklist.

Five quadrants are involved but for simplicity these have been identified by numbers as follows: NM84NE = 1; NM84SE = 2; NM84SW = 3; NM83NW = 4; NM73NE = 5. See also the map (Figure 1). For each species a brief description of habitat is given followed by an indication of the plant's distribution and frequency. For plants likely to be seen on any outing (at the appropriate time of year) the fairly self-explanatory terms common, frequent and occasional are used. For species described as rare some indication is usually given of their locations. Very rare indicates that the plant is presently known at one location only. Quadrant distribution (see above) is also shown.

For the purposes of the proposed new *Atlas of the British Flora* records made prior to 1987 are to be distinguished from those made afterwards. This practise is followed here.

For records made after 1986 usually no authority is given. For earlier records the authority and date, when known, are shown. A list of the people who have contributed to post 1986 recording on Lismore is given at the end of these introductory notes.

Introductions which are known to occur at three or fewer sites only are shown in small print. So too are scarce arable

weeds and one or two other species which did not appear in 1995. Records made prior to 1900, extinctions and probable errors are shown in square brackets and small print.

Of the small non-tidal islands which fall within the scope of this paper only Eilean na Cloiche has been visited by the writer, and then only briefly. Records for any of the other small islands are from lists supplied by P. Wormell on behalf of the former Nature Conservancy Council for Scotland, now Scottish Natural Heritage.

Nomenclature and systematic order follows Kent (1992) and English names are from Dony, Jury and Perring (1986). In a very few cases, where a plant is not listed in the latter work, the English name is from Stace (1991).

Contributors (post 1986): Pat Batty, Alison M.L. Brooks (Killean Farm); A Campbell, P. Cashman (S.N.H.); Dr J.H. Dickson; Dr Marion Hughes (S.N.H.); Dr H. Lang; R Pollitt (S.N.H.); Dr C.D. Preston (B.R.C.); G P Rothero; A A P Slack; Edna W. Stewart; Lily J.M. Stewart; N.F. Stewart; A.McG. Stirling; B.H. Thompson; Anna E. White; K. White.

Abbreviations and Symbols

*	not native in British Isles
+	not native in Lismore
agg.	aggregate
c.	circa
conf.	confirmed
det.	determined
et al.	and others
ibid.	in the same place
ha	hectares
km	kilometres
pers. comm.	personal communication
Proc.	Proceedings
sensu lato	in the broad, or former sense
sensu stricto	in the strict, or narrow sense
sp(p)	species (plural)
subsp.(p)	subspecies (plural)
teste	on the testimony
var.	variety
VC	vice-county
VC97	Westernness
VC98	Main Argyll
Wats.	Watsonia
AAPS	A.A.P.Slack
AMcGS	A. McG. Stirling
AMLB	Alison M.L. Brooks
BBC	British Broadcasting Corporation
BHT	B.H. Thompson
BRC	Biological Records Centre
BSBI	Botanical Society of the British Isles
CDP	C.D. Preston
DJMcC	D.J. McCosh
HMSO	Her Majesty's Stationery Office
ITE	Institute of Terrestrial Ecology
JNCC	Joint Nature Conservation Committee
NFS	N.F. Stewart
SNH	Scottish Natural Heritage

Key to layout of Checklist

Prominent capitals = Latin family names. For each species, the top line gives Latin name, common name, occurrence and quadrant distribution. Below are notes on habitat and any special comments on distribution.

SELAGINELLACEAE

Selaginella selaginoides Lesser Clubmoss Frequent 1-5
Flushes and wet ledges.

EQUISETACEAE

Equisetum fluviatile Water Horsetail Frequent 1-5
Shallow water of loch margins and wet ditches.

E. fluviatile x *E. arvense* = *E. x litorale* Shore Horsetail 3
Bog below Argyll Cottage.

E. arvense Field Horsetail Frequent 1-5
Roadsides, field margins and garden ground

E. sylvaticum Wood Horsetail
On AAPS list. No other records.

E. palustre Marsh Horsetail Occasional 1-5
Marshes and flushes.

OPHIOGLOSSACEAE

Ophioglossum vulgatum Adder's-tongue Rare 1, 4
Scarce on tidal island off Port Ramsay and in woodland west of Kilcheran Loch

Botrychium lunaria Moonwort Very rare 3
Unimproved limestone grassland. Killean Farm. Probably elsewhere but overlooked.

OSMUNDACEAE

Osmunda regalis Royal Fern Very rare 3
Boggy ground. Killean Farm. Only three plants remain from what, apparently, was a large stand prior to disturbance for tree planting. Steps are being taken to reinstate the site to encourage this beautiful fern to thrive again.

HYMENOPHYLLACEAE

Hymenophyllum tunbrigense Tonbridge Filmy-fern Very rare 4
Sparingly in woodland west of Kilcheran Loch.

H. wilsonii Wilson's Filmy-fern Occasional 1-5
On shaded rocks and tree bases. Probably absent on the dry east coast.

POLYPODIACEAE

Polypodium vulgare agg. Polypody Common 1-5
On trees rocks and walls.

P. vulgare Polypody 2-5
Recorded from all quadrants except 1. Distribution not yet clearly understood.

P. interjectum Intermediate Polypody 1-5
Probably the commonest of the segregates.

P. cambricum Southern Polypody Rare 3-4
On raised beach cliffs. Known at three sites only between Achnacroish and Port Kilcheran. First found by AMcGS (1972) and two further sites located by AMcGS and BHT (1994). These are the most northerly sites in Britain.

DENNSTAEDTIACEAE

Pteridium aquilinum Bracken Common 1-5
Well drained soils. Common but much less vigorous on the well grazed limestone soils of Lismore than on more acid mainland soils.

THELYPTERIDACEAE

Phegopteris connectilis Beech Fern Rather rare 2-4

In woodland and other shady places where more acid soils have been able to develop. Mainly in the west.

Oreopteris limbosperma Lemon-scented Fern 1-5
Damp grassland where more acid soils have developed. Occasional in the south of the island, rather rare elsewhere.

ASPLENIACEAE

Phyllitis scolopendrium Hart's-tongue Common 1-5
Limestone rocks and walls, particularly in shady situations.

Asplenium adiantum-nigrum Black Spleenwort Common 1-5
Limestone rocks, walls and banks.

A. marinum Sea Spleenwort Local 1-5
Fissures of raised beach cliffs and coastal rocks. The best populations are in the south-west.

A. trichomanes Maidenhair Spleenwort Common 1-5
Rocks and walls. The sub-species on Lismore have not been investigated but all, or most, will almost certainly be referable to subsp. *quadrivalens*.

A. ruta-muraria Wall-rue Locally common 1-5
Fissures of limestone rocks and walls.

Ceterach officinarum Rustyback Very rare 2
Unlocalised, BSBI field meeting 1963 (*Proc. BSBI* 6, 194). Roadside wall at Achuaran where it was noted by AAPS in 1989. The population here has since declined and only three plants could be found in 1994.

WOODSIACEAE

Athyrium filix-femina Lady-fern Common 1-5
Woodland and damp banks.

Gymnocarpium dryopteris Oak Fern Very rare 4
Shady woodland on more acid soils. Frackersaig

Cystopteris fragilis Brittle Bladder-fern Common 1-5
Damp crevices of limestone rocks and walls.

DRYOPTERIDACEAE

Polystichum setiferum Soft Shield-fern Very rare 1
Foot of wooded roadside bank at Point.

P. aculeatum Hard Shield-fern Occasional 1-5
Shaded places on raised beach cliffs and in woodland.

Dryopteris filix-mas Male-fern Occasional 1-5
Woodland and other shady places.

D. affinis Scaly Male-fern Common 1-5
Woodland and rocky banks. Tolerant of much more open habitats than *D. filix-mas*. The segregates have not been investigated.

D. dilatata Broad Buckler-fern Frequent 1-5
Woodland and other shady places.

BLECHNACEAE

Blechnum spicant Hard Fern Local 1-5
Woodland and rocky banks where more acid soils have developed. Mainly in the west and not seen on the east coast.

PINACEAE

**Picea sitchensis* Sitka Spruce 2
A single self sown tree was seen in quadrant 2. Fortunately the tree is rarely planted on the island.

CUPRESSACEAE

Juniperus communis Juniper On AAPS list. No other records.

TAXACEAE

Taxus baccata Yew Rare 5

Two trees grow close together on a cliff on the north-east side of Bernera and to the south there are wind-blasted trees high up on a raised beach cliff on the west coast of Lismore itself. There is conjecture as to whether one of the two Yews on Bernera, inaccessible without a rope and machete!, has sprouted from the stump of the legendary tree cut down nearly 200 years ago (Dickson, 1994). Legend has it that St. Columba conducted services under this same tree (Carmichael, 1948) so at the time of its demise it must have been at least 1,200 years old! Nevertheless some doubt remains about the native status of Argyll Yews since trees may have been in cultivation many centuries ago to satisfy demand for its valuable timber (Dickson, 1994).

NYMPHAEACEAE

Nymphaea alba White Water-lily Local 2,4
Loch Balnagown, Kilcheran Loch and Loch Fiart.

Nuphar lutea Yellow Water-lily Local 2,4
Loch Balnagown, Kilcheran Loch and Loch Fiart.

RANUNCULACEAE

Caltha palustris Marsh-marigold Common 1-5
Marshes, ditches and loch-sides.

Trollius europaeus Globeflower 2-4
Wet meadows and marshy ground. Rare and populations small. Killean Farm and north of Port Kilcheran.

Anemone nemorosa Wood Anemone Common 1-5
Dry banks, usually in woodland.

Ranunculus acris Meadow Buttercup Common 1-5
Damp grassland.

R. repens Creeping Buttercup Common 1-5
Damp places.

R. bulbosus Bulbous Buttercup 1,2,4-5
Dry calcareous grassland. Probably frequent but easily overlooked except when in flower in late spring and early summer. The only record for area 5 is from Bernera (AAPS& AMcGS, 1966).

R. flammula subsp. *flammula* Lesser Spearwort Common 1-5
Marshes and ditches.

R. ficaria subsp. *ficaria* Lesser Celandine
Common and often abundant 1-5
Damp pastures and woodland margins.

R. hederaceus Ivy-leaved Crowfoot Occasional 2,4-5
Muddy ground where inundation is frequent, for example at field gates.

R. trichophyllus Thread-leaved Water-crowfoot Rare 1,[4],5
Slow-flowing streams. Fennachrochan (AAPS c.1985); [Stream at Loch Fiart, Macvicar 1899 - as *R. drouetii*]; stream north of Dalnarrow (C.D. Preston, 1990).

Thalictrum minus Lesser Meadow-rue 1,3,5
On and below raised beach cliffs on the west coast from Glas Dhuim in the north to Druim Mor in the south. Inland at Killean Farm. Local, plentiful in a few places.

PAPAVERACEAE

Papaver dubium Long-headed Poppy 2-3
Arable ground, Killean Farm. When the arable field was first ploughed three years ago some 40 plants appeared. They then declined and none were seen in 1995.

+*Meconopsis cambrica* Welsh Poppy Very rare 1
Bushy ground on the north side of Port Ramsay

FUMARIACEAE

Fumaria muralis Common Ramping-fumitory Very rare 2-3
Arable ground. Killean Farm. None seen in 1995.

F. officinalis Common Fumitory Very rare 2-3
Arable ground. Killean Farm. (Formerly quite common on the edges of arable fields: L.J.M. Stewart pers. comm.) Both these Fumitories occur, somewhat unpredictably, in an arable field and vegetable plot. The sub-specific status of each needs to be determined.

ULMACEAE

Ulmus glabra Wych Elm Occasional 1-5
Raised beach cliffs and rocky woodland.

URTICACEAE

Urtica dioica Common Nettle Common 1-5
Most frequent in woodland and scrub at foot of raised beach cliffs; also about farms and other habitations.

U. urens Small Nettle Very rare 3
Arable ground. Killean Farm. Not seen in 1995.

MYRICACEAE

Myrica gale Bog-myrtle Rare 1,4
Boggy ground. Near Port na Moralachd; Brynalen; near Kilcheran Loch.

FAGACEAE

+*Fagus sylvatica* Beech 2-4
Planted in several places on the east side of the island (e.g. Kilcheran) and a few small self-sown trees occur in these areas.

Quercus petraea Sessile Oak Rare 2-3, (5)
Raised beach cliffs and possibly elsewhere. North of Castle Coeffin and a single tree south of Achnacroish. (Leaves were found below the Druim Mor cliffs but the tree could not be located).

Q. petraea x *Q. robur* = x *Q. rosacea* Rare 1,4
Raised beach cliff near Point and south of Kilcheran.

[*Q. robur* Pedunculate Oak
This was noted by Macvicar, 1899, as a native tree but there are no modern records.]

BETULACEAE

Betula pubescens Downy Birch Local 1-5
Mainly on raised beach cliffs and other crags. The best populations are on the west coast. Tree at Salen seem to be intermediate in leaf characters between this and *Betula pendula* but the latter has not been seen, with certainty, on Lismore.

Alnus glutinosa Alder Local and populations small 2-4
Wet ground, usually by streams.

Corylus avellana Hazel Common 1-5
By far the most plentiful "tree" on the island, often forming extensive thickets on the slopes below raised beach cliffs and on steep rocky slopes inland.

CHENOPODIACEAE

Chenopodium rubrum Red Goosefoot Very rare 2
Arable ground. Killean Farm. Prior to 1994 a few plants on compost heap and on damp edge of arable field. Not seen in 1994 but apparently re-appeared in 1995.

C. album Fat-hen Very rare 2-3
Arable ground. Killean Farm

Atriplex prostrata Spear-leaved Orache 1, 3-5
Coastal shingle. There are only five records which include Sgeir nan Tom (P. Wormell, 1986); Eilean na Cloiche and Bernera.

A. glabriuscula Babington's Orache Rare 2, 4
Coastal Shingle. Port na Moralachd (AAPS 1985) and quadrant 4 (AAPS, 1969).

A. patula Common Orache
Has been reported from coastal strand lines on Lismore and also *A. laciniata* (Frosted Orache) from the same habitat at Rubha Fiart. Both species require confirmation. Indeed confusion is likely to have occurred between *A. prostrata* and *A. glabriuscula*. *Atriplex* is a difficult genus and more work is needed on this group in Lismore.

Salicornia agg. Glasswort Very rare 1
Tidal silt and fine shingle. Fennachrochan.

[*Suaeda maritima* Annual Sea-blite

"Salt marsh near the Pier. No personal authority is named in *Top. Bot.*, ed. 2." Macvicar, 1899]

PORTULACACEAE

**Claytonia sibirica* Pink Purslane Rare 2-3

Damp shady places, stream and pond sides. Very small populations at several places by the road between Killandrist and Clachan; occasionally naturalised at Killean Farm where the flowers are always white

Montia fontana Blinks Rather rare 1-5
Choked ditches and wet track sides.

CARYOPHYLLACEAE

Arenaria serpyllifolia Thyme-leaved Sandwort Occasional 1-5

Dry gravelly ground and wall-tops. Subsp. *serpyllifolia* has been identified north-east of Port Kilcheran.

Moehringia trinervia Three-nerved Sandwort Rare 4
Rocky ground in woodland. North end of island (10km.sq. 84) AMcGS *et al.*, 1979; Frackersaig woods.

Stellaria media Common Chickweed Frequent 1-5
Coastal strand lines and waste ground.

S. holostea Greater Stitchwort Inexplicably rather rare 1-2, 4
Woodland and bushy places.

S. graminea Lesser Stitchwort Rare 1-5
Damp grassland. Inn Island (P. Wormell, 1986); Killean Farm; Kilcheran Loch; north of Dalnarrow.

S. uliginosa Bog Stitchwort Frequent 1-5
Ditches and marshes.

Cerastium fontanum Common Mouse-ear Common 1-5
Grassland and waste ground.

C. glomeratum Sticky Mouse-ear Frequent 1-5
Gravel tracks and other bare places.

C. diffusum Sea Mouse-ear 5
Soil pockets in coastal rocks. Rare but possibly under-recorded. North end of the island (10km sq. 84), AMcGS *et al.*, 1979 and in at least two places on south-west coast.

Sagina nodosa Knotted Pearlwort 1-5
Flushes, particularly on the coast. Frequent but easily overlooked prior to flowering.

S. procumbens Procumbent Pearlwort Frequent 1-5
Rather bare places such as tracks.

S. apetala subsp. *erecta* Annual Pearlwort Rare 3-4
Shallow soils on and around rock outcrops; tracks. Killean Farm; Baligrundle (N); Barr Mor. Perhaps under-recorded.

Spergula arvensis Corn Spurrey Occasionally plentiful 1-5
Cultivated and other disturbed ground.

Spergularia media Greater Sea-spurrey 1, 3-4
Saltmarshes and therefore very local.

Lychnis flos-cuculi Ragged-Robin Frequent 1-5
Marshes and damp pastures, particularly on the coast.

Silene uniflora Sea Campion Unexpectedly rare 2-5
Coastal rock crevices and shingle. Between Castle Coeffin and Salen; Eilean na Cloiche; Kilcheran; Bernera; south end of Lismore.

S. latifolia subsp. *alba* White Campion Very rare 3
Arable and other disturbed ground. Killean Farm. Very few plants. Originally introduced with seed corn?

S. dioica Red Campion Common 1-5
Raised beach cliffs and roadside banks.

POLYGONACEAE

Persicaria amphibia Amphibious Bistort 1,2,4
The aquatic form occurs in Loch Balnagown; the terrestrial form locally in wet grassland.

P. maculosa Redshank Occasional 2-5
A weed of arable land and garden ground.

P. hydropiper Water-pepper Rare 2-4
Wet grassland. Cameron Cottage and Kilcheran area.

Polygonum arenastrum Equal-leaved Knotgrass 2-4
Tracks and similar bare ground. Probably widespread and locally plentiful.

P. aviculare Knotgrass Frequent 1-5
Tracks, roadsides and waste ground. Probably less plentiful than *P. arenastrum*.

**Fallopia japonica* Japanese knotweed 1, 3-4
Fortunately rare and populations small. Port Ramsay, west of Achnacroish and Kilcheran.

Rumex acetosella Sheep's Sorrel Rare 2-3,5
Dry, bare ground. Old Schoolhouse; Killean Farm; Dalnarrow.

R. acetosa subsp. *acetosa* Common Sorrel Common 1-5
Grassland.

R. crispus subsp. *crispus* Curled Dock Common 1-5
Coastal strand lines and occasionally inland.

R. crispus subsp. *littoreus* 1,5
Noted only on the north-west coast and on Bernera but probably frequent.

R. conglomeratus Clustered Dock Very rare 4
Kilcheran Loch (BHT, 1984) is the only record.

R. sanguineus var. *viridis* Wood Dock Frequent 1-5
Damp woodland.

R. obtusifolius Broad-leaved Dock 2,4-5
Roadsides and about farms. Occasional but probably under-recorded.

PLUMBAGINACEAE

Armeria maritima subsp. *maritima* Thrift Common 1-5
Coastal rocks and saltmarshes.

CLUSIACEAE

Hypericum androsaemum Tutsan (Plate 2) Frequent 1-5
Damp, shaded rocky places in woodland and on coastal cliffs.

H. perforatum Perforated St John's-wort Rare 2, 4
Dry, rough grassland and roadside. Killean Farm; Eilean na Cloiche (P. Wormell, 1986).

H. maculatum Imperforate St John's-wort Very rare 2
By stream and roadside verge. Killean Farm. A few plants only.

H. tetrapterum Square-stalked St John's-wort Frequent 1-5
Marshes, stream-sides and ditches.

H. humifusum Trailing St John's-wort 2-5
Dry banks and wall-tops. Rather rare and populations always small.

H. pulchrum Slender St. John's-Wort Common 1-5
In a wide range of drier habitats.

H. elodes Marsh St. John's wort 3
Noted by Macvicar (1899) as "rather common". Now extremely rare. Wet, peaty ditch sides. Killean Farm but no plants could be found in 1995.

DROSERACEAE

Drosera rotundifolia Round-leaved Sundew Occasional 1-5
Boggy places, particularly on more acid hummocks.

CISTACEAE

Helianthemum nummularium Common Rock-rose (Plate 2) 1-5
Limestone grassland and outcrops. Local in the north part of the island, increasing in frequency and abundance southwards. A form with very pale yellow flowers was seen by AMcGS and BHT south of Achnacroish.

VIOLACEAE

Viola riviniana Common Dog-violet Common 1-5
Woodland and rocky banks.

V. palustris Marsh Violet 1-4
Only in more acid pastures and mires and thus rather rare.

V. tricolor subsp. *tricolor* Wild Pansy Very rare 2-3
Uncommon weed in arable field. Killean Farm but none seen in 1995.

V. arvensis Field Pansy Very rare 2-3
Arable ground. Killean Farm. Only a few plants.

SALICACEAE

Populus tremula Aspen 1-5
Raised beach cliffs. Good populations are scattered along the west coast; rare, possibly absent, in the east and not seen inland.

Salix purpurea Purple Willow Rare 2,4
Wet valley bottoms. Near the Old Schoolhouse; Balure; Brynalen; and probably in one or two other places.

S. purpurea x *S. viminalis* = *S. x. rubra* Green-leaved Willow Rare 2-3
Similar wet places to above. Achuaran; Clachan; near the Old Schoolhouse; near Achnacroish.

+*S. viminalis* Osier Rare 2
Noted by Macvicar (1899) who considered it "undoubtedly planted". North of the Old Schoolhouse, and in one or two other places where it is certainly planted.

S. viminalis x *S. caprea* = *S. x. sericans* Broad-leaved Osier 3
Killean Loch, presumed planted.

S. viminalis x *S. caprea* x *S. aurita* = *S. x stipularis*
Eared Osier Very rare 3
Roadside, Killean. C.D. Preston et al. 1990, det. R.D. Meikle. As it has long been popular to plant the larger and more ornamental Willows, it is impossible to know which populations of the above species and hybrids are truly native.

S. caprea Goat Willow Frequent 1-5
Woodland of raised beach cliffs and inland crags.

S. cinerea subsp. *oleifolia* Rusty Willow 2-4
Wet places. Apparently rare but probably under recorded. Clachan; Eilean Dubh (P. Wormell, 1986); Killean; Kilcheran Loch.

S. aurita Eared Willow Frequent 1-5
Woodland margins and damp rough grassland particularly in the southern half of the island.

S. aurita x *S. repens* = *S. x ambigua* 3-4
Killean Farm; rough grassland south-west of Achadun Castle, conf. R.D. Meikle. No doubt elsewhere.

S. repens Creeping Willow Locally frequent 3-5
Both damp and dry grassland.

BRASSICACEAE

[**Sisymbrium altissimum* Tall Rocket
Lismore, S.M. Macvicar, 1899 - *teste* K.N.G. Macleay. It is not mentioned in the Macvicar paper cited in the references].

S. officinale Hedge Mustard 3
A very scarce casual of disturbed ground. Killean Farm.

Arabidopsis thaliana Thale Cress Occasional 2-4
Bare soil on rock ledges.

**Hesperis matronalis* Dame's-violet 3
Abandoned garden of derelict cottage near Balveolan.

Rorippa nasturtium-aquaticum agg. Water-cress 1-5
Marshes, ditches and springs. Frequent, particularly along coasts. *R. nasturtium-aquaticum sensu stricto* has been recorded from areas 2-5 and all Lismore plants may be referable to this segregate.

Cardamine pratensis Cuckooflower Common 1-5
Wet meadows and marshes.

C. flexuosa Wavy Bitter-cress Frequent 1-5
Damp ground in woodland, gardens and among rocks.

C. hirsuta Hairy Bitter-cress Probably frequent 1,3-5
Dry bare ground.

<i>Arabis hirsuta</i>	Hairy Rock-cress	Occasional or rare	1-3,5	
Dry rock ledges and wall tops, mainly coastal. Populations usually small.				
<i>Erophila verna sensu lato</i>	Whitlowgrass	Occasional or rare	2-5	
Dry sandy ground and on ruins. <i>E. verna sensu stricto</i> has been confirmed in areas 4 and 5 (conf. T.T. Elkington) and probably all Lismore plants are referable to this taxon.				
<i>Cochlearia officinalis</i>	Common Scurvygrass		1-5	
Coastal rocks and saltmarshes. Usually small and sporadic. Luxuriant plants occur on the coast WNW of Cameron Cottage and when in flower are visible from Castle Coeffin over one kilometre away.				
<i>C. danica</i>	Danish Scurvygrass.	Very rare	3	
A single plant reported from rocky shore near Salen.				
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	Frequent	1-5	
Garden and arable ground; sides of tracks.				
<i>Thlaspi arvense</i>	Field Penny-cress	Very rare	2-3	
Weed of arable land. Killean Farm. Not seen in 1995.				
* <i>Brassica rapa</i>	Wild Turnip	Rare	2-3	
Casual. Killean Farm; a single plant west of Balygrundle.				
<i>Sinapis arvensis</i>	Charlock	Rare	2-3	
Arable and waste ground. Noted by MacVicar (1899); by AMcGS in 10km. square 84 (1979); Killean Farm.				
* <i>Raphanus raphanistrum subsp. raphanistrum</i>	Wild Radish	Rare	3	
Casual. A single plant west of Balygrundle in 1994. Killean Farm.				
ERICACEAE				
<i>Calluna vulgaris</i>	Heather	Common	1-5	
A widespread constituent of grassland and heath but suppressed by heavy grazing and not conspicuous. Rarely well-grown or forming pure stands.				
<i>Erica tetralix</i>	Cross-leaved Heath	Rare	1-4	
Confined to the few examples of wet heath. Near Port Ramsay; Eilean Dubh (P. Wormell, 1986); Killean; near Brynalen.				
<i>E. cinerea</i>	Bell Heather	Locally frequent	1-2,4-5	
Dry, open ledges of raised beach cliffs and rocky banks.				
<i>Vaccinium myrtillus</i>	Bilberry		1-5	
In places where somewhat acid soils have developed, mainly on or close to raised beach cliffs. Occasional in west, rare in the east and inland.				
PYROLACEAE				
<i>Pyrola minor</i>	Common Wintergreen	Very rare	2	
A single flowering plant in coastal Hazel wood north of Castle Coeffin.				
PRIMULACEAE				
<i>Primula vulgaris</i>	Primrose	Common	1-5	
In a wide variety of damp habitats.				
<i>Lysimachia nemorum</i>	Yellow Pimpernel	Frequent	1-5	
Damp woodland and stream-sides.				
* <i>L. punctata</i>	Dotted Loosestrife		3	
Well established on roadside bank. Killean.				
<i>Anagallis tenella</i>	Bog Pimpernel	Rare	3-5	
Coastal flushes. Killean Farm; near Fiart Farm; south of Achadun Castle.				
<i>A. arvensis</i>	Scarlet Pimpernel	Very rare	3	
Killean Farm. Beside a new track and occasional in arable field. Both "scarlet" and pink-flowered plants occur.				
<i>Glaux maritima</i>	Sea-milkwort	Frequent	1-5	
Coastal shingle and saltmarshes.				
<i>Samolus valerandi</i>	Brookweed	Frequent	1-5	
Coastal flushes and damp rock crevices.				
GROSSULARIACEAE				
+ <i>Ribes uva-crispa</i>	Gooseberry		2,4	
Roadsides and bushy places. Occasional and usually a single or very few bushes. South-west of Clachan; near Tirefour; Kilcheran area.				
CRASSULACEAE				
<i>Sedum rosea</i>	Roseroot	Rare	3,5	
Raised beach cliffs. Sgeir an t-Sailein; Bernera, north side; south-west Lismore cliffs, but only a few plants.				
<i>S. acre</i>	Biting Stonecrop	Frequent	1-5	
Mainly on coastal rocks and shingle.				
<i>S. anglicum</i>	English Stonecrop		1-5	
Similar habitats to <i>S. acre</i> and probably equally frequent.				
SAXIFRAGACEAE				
<i>Saxifraga aizoides</i>	Yellow Saxifrage		2-5	
Stony flushes and wet limestone outcrops. Locally plentiful on the west coast and occasionally inland.				
<i>S. granulata</i>	Meadow Saxifrage	Very rare	2-3	
Dry grassland in unimproved meadow. Killean Farm. Only a few small patches. Not seen in 1994 but refound in 1995.				
<i>S. tridactylites</i>	Rue-leaved Saxifrage (Plate 2)	Occasional	2-5	
Soil pockets on limestone rocks and wall-tops.				
<i>Chrysopolitanum oppositifolium</i>	Opposite-leaved Golden-saxifrage		1-5	
Wet shady places in woodland at flushes and springs. Frequent and locally plentiful.				
<i>C. alternifolium</i>	Alternate-leaved Golden-saxifrage		1	
Very scarce in Hazel woodland, Glas Dhrum.				
<i>Parnassia palustris</i>	Grass-of-Parnassus	Frequent	1-5	
Damp grassland and flushes.				
ROSACEAE				
<i>Filipendula ulmaria</i>	Meadowsweet	Common	1-5	
In a wide variety of damp habitats.				
<i>Rubus saxatilis</i>	Stone Bramble	Frequent	1-5	
Raised beach cliffs and inland crags.				
<i>R. idaeus</i>	Raspberry	Rather rare	1-5	
Among rock detritus at the foot of raised beach cliffs. Bushes in the Port Ramsay and Killean areas may be of garden origin.				
<i>R. fruticosus</i> agg.	Bramble	Common	1-5	
Woodland margins, bushy places and roadsides.				
The following segregates occur, all determinations by AMcGS.				
<i>R. dumnoniensis</i>			2,4	
<i>R. polyanthemus</i>			1-5	
<i>R. septentrionalis</i>			4-5	
<i>R. subinermoides</i>			2-4	
<i>R. latifolius</i>			4-5	
<i>R. pictorum</i>			2	

<i>Potentilla palustris</i> Marsh Cinquefoil	Frequent	1-5	Growing with large bushes of <i>R. pimpinellifolia</i> but <i>R. mollis</i> absent. Det. G.G. Graham.
Fens and marshes.			
<i>P. anserina</i> Silverweed	Frequent	1-5	<i>R. canina</i> Dog-rose Probably frequent 2-3,5
Coastal strand lines and roadsides.			Woodland margins, bushy places and raised beach cliffs.
<i>P. neumanniana</i> Spring Cinquefoil		3-5	Distribution not yet fully known.
Dry basic grassland and limestone outcrops. Apparently absent at the north end of the island, most frequent in the south-west.			<i>R. caesia</i> subsp. <i>glauca</i> Glaucous Dog-rose Frequent 1-5
			Habitat as for <i>R. canina</i> .
<i>P. erecta</i> Tormentil	Common	1-5	<i>R. sherardii</i> Sherard's Downy-rose Frequent 1-5
In a wide variety of grassland and other habitats.			Habitat as for <i>R. canina</i> .
<i>P. reptans</i> Creeping Cinquefoil	Very rare	3	<i>R. mollis</i> Soft Downy-rose 3
Disturbed ground. Killean Farm. Not seen in 1995.			Bank by access to Killean Farm. Almost certainly elsewhere.
<i>P. sterilis</i> Barren Strawberry	Common	1-5	<i>Prunus spinosa</i> Blackthorn 1-5
Basic grassy banks and woodland.			Raised beaches and woodland margins. Common along coasts, less so inland.
<i>Fragaria vesca</i> Wild Strawberry	Common	1-5	<i>P. avium</i> Wild Cherry Rare 2-4
Damp banks, outcrops and woodland.			Raised beach cliffs and ravines. Balnagown; Port na Moralachd; Salen; Kilcheran.
<i>Geum rivale</i> Water Avens	Frequent	1-5	<i>P. padus</i> Bird Cherry 4
Stream-sides and in wet places in woods and on crags.			Reported from the Kilcheran area in 1987. Could well occur but as there are no other records of native trees, and as <i>P. avium</i> could have been intended, confirmation is desirable.
<i>G. urbanum</i> Wood Avens	Occasional	1-2,4-5	<i>Sorbus aucuparia</i> Rowan Frequent 1-5
Drier ground in woodland and a garden weed at Hawthorn House!			Woodland and cliffs.
<i>Dryas octopetala</i> Mountain Avens (Plate 2)		5	<i>*S. intermedia</i> Swedish Whitebeam 2
Short limestone grassland and outcrops. Local in south-west: Bernera, south-west end; Druim Mor.			A single self-sown tree in mixed broad-leaved woodland south of Port na Moralachd; a single tree behind Hawthorn House but perhaps planted.
<i>Agrimonia eupatoria</i> Agrimony			<i>S. rupicola</i> Rock Whitebeam (Plate 2) 2-5
Dry ledges and slopes below raised beach cliffs. Agrimony is a frequent plant on Lismore and recorded from all five areas. The two species can only be separated satisfactorily when in fruit but it is probable that most Lismore plants are <i>A. eupatoria</i> which is reliably recorded from the areas 1 - 2, 4-5.			Raised beach cliffs on the west coast from Port na Moralachd southwards. Most plentiful in south-west and on Bernera. Usually inaccessible.
<i>A. procera</i> Fragrant Agrimony			<i>*Cotoneaster integrifolius</i> Small-leaved Cotoneaster 2-4
East coast, E.C. Wallace, 1949 (<i>Watsonia</i> 2,43); coast south of Achnacroish. (A.G. Kenneth and BHT, 1984).			Raised beach cliffs, walls and ruins. Well naturalised in a number of places as at Castle Coeffin, Salen and Kilcheran.
<i>+Sanguisorba minor</i> Salad Burnet		3	<i>Crataegus monogyna</i> Hawthorn Common 1-5
Two plants at entrance to Killean Farm. Presumed introduction with wild-flower seed.			Scrub woodland, base of crags and roadsides.
<i>Alchemilla xanthochlora</i> Intermediate Lady's-mantle			FABACEAE
	Rare	1-2,4	<i>Anthyllis vulneraria</i> Kidney Vetch Frequent 1-5
Grassland. 10 km. square 84 (AMcGS, 1979); Balimackill- chan-Port Ramsay, only a few sites; Kilcheran area.			Basic grassland and limestone outcrops particularly on coasts. Subsp. <i>vulneraria</i> was identified south of Achnacroish and Lismore plants may all be referable to this segregate.
<i>A. filicaulis</i> subsp. <i>vestita</i> Hairy Lady's-mantle		2,4-5	<i>Lotus corniculatus</i> Common Bird's-foot-trefoil Common 1-5
Basic grassland. Rather rare, perhaps under-recorded.			Grassland and rock outcrops.
<i>A. glabra</i> Smooth Lady's-mantle	Frequent	1-5	<i>L. pedunculatus</i> Greater Bird's-foot-trefoil Rare 2-4
Grassland, stream-sides and damp ledges.			Wet grassland. Killean Farm; Kilcheran area.
<i>Aphanes arvensis</i> agg. Parsley-piert	Occasional	1-5	<i>Vicia cracca</i> Tufted Vetch Frequent 1-5
Dry tracks and sandy ground. <i>A. inexpectata</i> has been identified at Killean Farm, Eilean na Cloiche and Bernera and it is likely that all Lismore plants are referable to this segregate.			Bushy places and rough grassland.
<i>Rosa pimpinellifolia</i> Burnet Rose	Locally frequent	1-5	<i>V. sylvatica</i> Wood Vetch Rare 1,5
Ledges of dry limestone outcrops, mainly coastal.			Ledges of raised beach cliffs. Slughan and Druim Mor.
<i>R. pimpinellifolia</i> x <i>R. mollis</i> = <i>R. x sabinii</i>		2	<i>V. sepium</i> Bush Vetch Common 1-5
Foot of raised beach cliff south-east of Castle Coeffin.			Bushy places and cliff ledges.
			[* <i>V. sativa</i> subsp. <i>sativa</i> Common Vetch Very rare 3
			Killean Farm. Vegetable plot which is being converted to tree nursery so will probably disappear].

Lathyrus pratensis Meadow Vetchling Frequent 1-5
Grassland and bushy places.

**Pisum sativum* var. *arvense* Field Pea 2
Planted as part of a mixed silage crop at Baileouchdarach and one or two plants as weeds in a barley field near the Old Schoolhouse.

Medicago lupulina Black Medick Very rare 3
Dry grassland between limestone outcrops. Killean Farm.

Trifolium repens White Clover Common 1-5
Grassland, roadsides and tracks.

T. dubium Lesser Trefoil Occasional 2-5
Short grassland and gravelly ground.

T. pratense Red Clover Common 1-5
Grassland.

[*T. medium* Zigzag Clover 2
Unimproved grassland. Killean Farm. One plant, now lost]

Ulex europaeus Gorse Rare 2-4
Rough grassland. Near Whin House!; Eilean Dubh (P. Wormell, 1986); north-west of Baligrundle (N); Kilcheran area.

HALORAGACEAE

Myriophyllum spicatum Spiked Water-milfoil 2,4
A submerged aquatic in Loch Balnagown, Kilcheran Loch and Loch Fiart.

LYTHRACEAE

Lythrum salicaria Purple-loosestrife Rare 2,4
Loch margins. Loch Balnagown and Kilcheran Loch.

ONAGRACEAE

Epilobium parviflorum Hoary Willowherb Frequent 1-5
Ditches and stream-sides.

E. montanum Broad-leaved Willowherb Frequent 1-5
Woodland and shady places on crags.

E. obscurum Short-fruited Willowherb Rare 1-3,5
Marshes and ditches. Few records which include Port Ramsay, Killean Farm and Bernera.

**E. ciliatum* American Willowherb 2
Garden weed at the Old Schoolhouse.

E. palustre Marsh Willowherb Frequent 1-5
Marshes and choked ditches.

**E. brunnescens* New Zealand Willowherb Rare or overlooked 3
Bare, wet stony places. Disused quarry at Salen.

Chamerion angustifolium Rosebay Willowherb Rare 1,4-5
Walls of ruined buildings and bushy ground. Fennachrochan; Eilean na Cloiche; Kilcheran; Dalnarrow.

**Fuchsia magellanica* Fuchsia 1-4
Walls and banks. Occasionally naturalised near habitations as at Achueran House, Killean Farm and Kilcheran.

Circaea lutetiana Enchanter's-nightshade Local or rather rare 2-5

Woodland and other shady places. Balnagown; garden weed at Hawthorn House; Killean Farm; Eilean na Cloiche (P. Wormell, 1986); probably several places in Kilcheran area; Bernera (AAPS and AMGS, 1979).

C. lutetiana x *C. alpina* = *C. x intermedia*
Upland Enchanter's-nightshade Occasional 1-5
Woodland and shady places among boulders and under bracken.

AQUIFOLIACEAE

Ilex aquifolium Holly Occasional 1-5
Raised beach cliffs. Usually solitary and trees frequently small and wind-blasted.

EUPHORBACEAE

Mercurialis perennis Dog's Mercury Common 1-5
Woodland, shady recesses on crags and among boulders.

Euphorbia helioscopia Sun Spurge Rare 2-4
Cultivated ground. Weed in mixed silage field at Baileouchdarach; Killean Farm; garden ground Kilcheran.

E. peplus Petty Spurge Very rare 2-3
Cultivated ground. Killean Farm.

LINACEAE

Linum catharticum Fairy Flax Common 1-5
Limestone outcrops and grassland.

Radiola linoides Allseed Very rare 3
At the edge of a new track at Killean Farm in 1992 but not seen since.

POLYGALACEAE

Polygala vulgaris Common Milkwort Frequent 1-5
Limestone outcrops and cliff ledges.

P. serpyllifolia Heath Milkwort 1-5
Characteristic of acid grassland and heaths. Less frequent than *P. vulgaris* on Lismore but true status unclear because of probable confusion between the two species.

ACERACEAE

**Acer pseudoplatanus* Sycamore 1-5
Frequently planted, as in the policies of Achueran House. Self-sown trees are frequent, mainly on coasts, in the northern half of the island.

OXALIDACEAE

Oxalis acetosella Wood-sorrel Frequent 1-5
Damp shady places: woodland, among boulders and under bracken.

GERANIACEAE

Geranium pratense Meadow Crane's-bill Local 2
Roadsides, field margins and rough grassland. In several places in the Clachan-Balnagown - Tirefour area.

G. columbinum Long-stalked Crane's-bill 1-5
Limestone outcrops, grassland and coastal shingle. Rather rare and populations always small: Point; Killean Farm; Kilcheran; Bernera; etc..

G. dissectum Cut-leaved Crane's-bill Rare 2-4
Disturbed ground and grassland. Bachuil; Balnagown; Killean Farm; Loch Fiart area; Kilcheran.

[*G. pusillum* Small-flowered Crane's-bill
Reported in 1992 at Port Kilcheran but confirmation required].

G. molle Dove's-foot Crane's-bill Occasional 1-4
Short dry grassland, outcrops and shingle.

G. lucidum Shining Crane's-bill Occasional 1-5
Soil pockets on coastal limestone outcrops, boulders and walls.

G. robertianum Herb-Robert Common 1-5
Woodland, rocky roadside banks and cliff ledges.

ARALIACEAE			
<i>Hedera helix</i>	Ivy	Common	1-5
Coastal and inland cliffs, occasionally on trees particularly on the east coast.			
APIACEAE			
<i>Hydrocotyle vulgaris</i>	Marsh Pennywort	Frequent	1-5
Wet coastal grassland and loch margins.			
<i>Sanicula europaea</i>	Sanicle	Common	1-5
Damp shady woodland and cliff ledges.			
<i>Anthriscus sylvestris</i>	Cow Parsley	Local	1-5
Roadsides and rough grassland. Several places in the north-east; Eilean na Cloiche; Bernera (P. Wormell, 1983).			
[* <i>Myrrhis odorata</i> Sweet Cicely 1 Noted for Sgeir nan Tom (P. Wormell 1986). Its occurrence on a tiny uninhabited island seems odd and confirmation is desirable].			
<i>Conopodium majus</i>	Pignut	Common	1-5
Grassland.			
* <i>Aegopodium podagraria</i> Ground-elder Occasional near habitations 1-4 Roadsides and garden ground.			
<i>Berula erecta</i>	Lesser Water-parsnip	Very rare	2
Stream below Cameron Cottage.			
<i>Oenanthe lachenalii</i>	Parsley Water-dropwort	Rare	1, 3-4
Saltmarshes. Rubha Ban (very scarce); Salen; Achadun Bay.			
<i>O. crocata</i>	Hemlock Water-dropwort	Locally frequent	2,4-5
Ditches and wet stony places near the sea.			
<i>Apium graveolens</i>	Wild Celery		3
A few plants by a recently formed pond at Killean Farm.			
<i>A. nodiflorum</i>	Fool's Water-cress	Rare	1-2
Slow flowing streams and ditches. Near Port Ramsay; Balnagown.			
<i>Ligusticum scoticum</i>	Scots Lovage	Rare and populations small	1,4-5
Fissures of coastal rocks. Port Ramsay tidal island; Sgeir nan Tom (P. Wormell, 1986); Achadun; Eilean Dubh and/or Eilean na Cloiche (P. Macpherson, 1964); Creag Island (P. Wormell, c. 1986); Port an Rubha.			
<i>Angelica sylvestris</i>	Wild Angelica	Common	1-5
Stream-sides, marshes and wet ledges.			
<i>Heracleum sphondylium</i>	Hogweed	Common	1-5
Roadsides and rough grassland.			
<i>Torilis japonica</i>	Upright Hedge-parsley	Frequent	1-5
Dry banks, particularly at the foot of raised beach cliffs.			
[<i>T. arvensis</i> Spreading Hedge-parsley Cornfields, Lismore (Lightfoot, 1777). Not mentioned by Macvicar (1899) and there are no modern records].			
<i>Daucus carota</i>	Wild Carrot	Locally plentiful	1-5
Dry grassland and ledges close to the sea.			
GENTIANACEAE			
<i>Centaureum erythraea</i>	Common Centaury	Locally frequent	1-5
Short grassland and ledges of limestone outcrops, mainly coastal.			

<i>Gentianella campestris</i>	Field Gentian		1-4
Short limestone grassland. The few records suggest it is rare, but it is late flowering and probably under-recorded. Near Achueran House; Rubha Ban; Killean Farm; Fracker-saig; Kilcheran area.			
SOLANACEAE			
<i>Solanum dulcamara</i>	Bittersweet	Very rare	2-3
Edge of alder plantation and on stream bank. Killean Farm.			
* <i>S. tuberosum</i>	Potato		5
A short-lived casual. Near Dalnarrow and probably elsewhere.			
CONVOLVULACEAE			
* <i>Calystegia silvatica</i>	Large Bindweed		2
Bushy ground at Achnacroish, well established.			
* <i>C. pulchra</i>	Hairy Bindweed		3
Abandoned garden of derelict cottage near Balveolan.			
MENYANTHACEAE			
<i>Menyanthes trifoliata</i>	Bogbean	Locally frequent	2-5
Slow-flowing streams, loch margins and fens.			
BORAGINACEAE			
[<i>Lithospermum officinale</i> Common Gromwell "Lismore. Macvicar in lit. A.B. 9.10.1899" teste K.N.G. MacLeay. No other records. It could well occur].			
[<i>Echium vulgare</i>	Viper's-bugloss		2
Bachuil: one plant, casual in hayfield, c. 60 years ago. Teste L.J.M. Stewart].			
<i>Myosotis scorpioides</i>	Water Forget-me-not		3
Beside small, newly formed pond at Killean Farm. Records for Kilcheran Loch and lochan south of Loch Fiart are both probable errors.			
<i>M. secunda</i>	Creeping Forget-me-not	Rare	1-3
Rather bare ground in flushes. Port na Moralachd (north end); Port Ramsay; Killean Farm.			
<i>M. laxa subsp. caespitosa</i>	Tufted Forget-me-not	Frequent	1-5
Loch and stream-sides, marshes and ditches.			
<i>M. arvensis</i>	Field Forget-me-not	Occasional	2-5
Dry grassland at base of coastal cliffs and in bushy places.			
<i>M. discolor</i>	Changing Forget-me-not	Rare or overlooked	2,4
Dry grassland and track-sides. 10 km sq. 84 (AMcGS, 1979); Killean Farm; coast at Miller's Port.			
LAMIACEAE			
<i>Stachys sylvatica</i>	Hedge Woundwort	Frequent	1-5
Woodland and other sheltered places.			
<i>S. sylvatica</i> x <i>S. palustris</i> = <i>S. x ambigua</i>		Very rare	3
Roadside at Frackersaig.			
<i>S. palustris</i>	Marsh Woundwort	Unexpectedly rare	2-4
Barley field near Old Schoolhouse; Killean Farm; damp ground on coast at Miller's Port.			
<i>Lamium album</i>	White Dead-nettle	Very rare	3
Garden and other disturbed ground. Killean Farm. Not seen in 1995.			
<i>L. purpureum</i>	Red Dead-nettle	Rare	1-3
Garden and other disturbed ground. Point and Killean Farm.			
<i>L. hybridum</i>	Cut-leaved Dead-nettle		2 or 3
Scarce in arable field, Killean Farm.			
<i>L. confertum</i>	Northern Dead-nettle	Very rare	2-3
Killean Farm. Uncommon in arable field and not found every year. Not found in 1995.			

<i>Galeopsis speciosa</i>	Large-flowered Hemp-nettle	Very rare	2-3
Killean Farm. Formerly quite common in arable field but scarce in 1995.			
<i>G. tetrahit</i> agg.	Common Hemp-nettle		2-4
Strand-lines and arable land. Apparently rather rare. Weed in silage crop Baileouchdarach (= <i>G. tetrahit sensu stricto</i>); Killean Farm (= <i>G. bifida</i> and <i>G. tetrahit</i>); Eilean Dubh (P. Wormell, 1986).			
<i>Scutellaria galericulata</i>	Skullcap	Rare	2,4-5
Damp stony ground on coasts. Tirefour; Kilcheran area; coast south of Bernera; Rubha Fiart.			
<i>S. minor</i> .	Lesser Skullcap	Rare	1,5
Wet coastal flushes. Eilean Ramsay (P. Wormell, 1986); Bernera.			
<i>Teucrium scorodonia</i>	Wood Sage	Common	1-5
Open woodland and crag ledges.			
<i>Ajuga reptans</i>	Bugle	Frequent	1-5
Damp ground in woodland and other shady places.			
<i>Glechoma hederacea</i>	Ground-ivy	Rare	1,3
Woodland near Fennachrochan; roadside verges in centre of island but few sites and populations small.			
<i>Prunella vulgaris</i>	Selfheal	Common	1-5
In a wide range of damp habitats.			
<i>Clinopodium vulgare</i>	Wild Basil		1-4
Dry ledges of raised beach cliffs. Scattered along the north and east coasts from Glas Dhrum in north-west to Kilcheran in the south.			
<i>Thymus polytrichus</i> subsp. <i>britannicus</i>	Wild Thyme	Common	1-5
Short dry grassland and limestone outcrops.			
<i>Lycopus europaeus</i>	Gipsywort	Very rare	4
Damp ground above shore. South side of Port Kilcheran.			
<i>Mentha aquatica</i>	Water Mint	Common	1-5
Stream-sides and flushes.			
* <i>M. aquatica</i> x <i>M. spicata</i> = <i>M. x piperita</i>	Peppermint	Rare	2-3,5
Naturalised in streams; below Cameron Cottage; near Balveolan; Dalnarrow.			
HIPPURIDACEAE			
<i>Hippuris vulgaris</i>	Mare's-tail		2-5
Shallow loch margins and wet fens. At all three main lochs; occasional elsewhere.			
CALLITRICHACEAE			
<i>Callitriche stagnalis</i>	Common Water-starwort		
		Rare or under-recorded	2,4
Shallow water of pond margins and ditches. Balure; Killean Farm; south-east of Ballygrundle.			
<i>S. hamulata</i>	Intermediate Water-starwort	Rare	3-4
Ponds and ditches. Acid ditch near Creag an Fhithich; pond south-east of Ballygrundle.			
PLANTAGINACEAE			
<i>Plantago coronopus</i>	Buck's-horn Plantain	Frequent	1-5
Short dry grassland and soil pockets in rocks, always coastal.			
<i>P. maritima</i>	Sea Plantain		1-5
Short dry grassland and rock fissures. Common on coasts, frequent inland.			
<i>P. major</i>	Greater Plantain	Common	1-5
Tracks, roadsides and waste ground.			
+ <i>P. media</i>	Hoary Plantain		
A single plant in 1995 at entrance to Killean Farm. Assumed introduction with wild-flower seed.			
<i>P. lanceolata</i>	Ribwort Plantain	Common	1-5
Damp grassland in a wide range of habitats.			
<i>Littorella uniflora</i>	Shoreweed		2,4
Shallow water of loch margins. Loch Balnagown; Kilcheran Loch; Loch Fiart.			
OLEACEAE			
<i>Fraxinus excelsior</i>	Ash	Common	1-5
Mainly in woodland and on cliffs and crags.			
SCROPHULARIACEAE			
<i>Scrophularia nodosa</i>	Common Figwort	Occasional	1-5
Damp woodland and other sheltered places.			
* <i>Mimulus moschatus</i>	Musk		3
Damp ground. Killean Farm. A few plants at one site. Not yet fully naturalised.			
* <i>Mimulus</i>	Monkeyflower		
Monkeyflowers occur in a number of places, in streams and ditches, in quadrants 1-3. The following have been determined:			
* <i>M. guttatus</i>	Monkeyflower (Plate 3)		2-3
Quadrant 2, unlocalised (J.H. Dickson, 1991); Killean Loch; north of Baligrundle (N) (BSBI Field Meeting 1992, det. AMcGS).			
* <i>M. guttatus</i> x <i>M. luteus</i> = <i>M. x robertsii</i>			1-2
Port Ramsay and stream below Cameron Cottage (both 1994, det. BHT); Loch Balnagown (C.D. Preston et al 1990, det. A.J. Silverside; <i>ibid.</i> BHT 1994, det. BHT).			
* <i>Cymbalaria muralis</i> subsp. <i>muralis</i>	Ivy-leaved Toadflax	Rare	1
Side of gravel track in village, Port Ramsay; old garden and field walls: seen at several places by AMLB but the localities cannot be recalled.			
<i>Digitalis purpurea</i>	Foxglove	Frequent	1-5
Roadside banks, cliffs and woodland margins.			
* <i>Erinus alpinus</i>	Fairy Foxglove		2,4
Naturalised on garden walls of Hawthorn House to where it was introduced from the following: plentiful on a ruin at Kilcheran and on the mortared masonry joints of the disused lime-kiln at Port Kilcheran. A few plants have spread on to natural limestone outcrops close by at the last place.			
<i>Veronica serpyllifolia</i> subsp. <i>serpyllifolia</i>	Thyme-leaved Speedwell	Occasional	1-5
Gravel tracks and damp grassland.			
<i>V. officinalis</i>	Heath Speedwell	Rare	2-4
Non-calcareous grassland. Killean Farm and Barr Mor.			
<i>V. chamaedrys</i>	Germander Speedwell	Common	1-5
Woodland and grassy banks.			
<i>V. montana</i>	Wood Speedwell	Very rare	4,?5
Damp woodland. West of Kilcheran Loch. It has also been reported from Bernera but confirmation of its occurrence there is needed.			
<i>V. scutellata</i>	Marsh Speedwell		1,3-4
Marshes and flushes. Rare but probably under-recorded. Port na Moralachd (north end); near Stronacroibh; Kilcheran Loch; Loch Fiart.			

V. beccabunga Brooklime 1-5
Streams, springs and runnels. Common on coasts, less frequent inland.

V. anagallis-aquatica Blue Water-speedwell Frequent 1-5
Slow-flowing streams and ditches.

V. arvensis Wall Speedwell Occasional 1-5
Wall-tops and sandy ground.

V. agrestis Green Field-speedwell Very rare 2-3
Cultivated ground. Killean Farm. A few plants in arable field.

**V. persica* Common Field-speedwell Rare 1-3
Cultivated and other disturbed ground. Port Ramsay (a white-flowered form) and Killean Farm.

**V. filiformis* Slender Speedwell Very rare 2-3
Grassy ground. Killean area.

Melampyrum sylvaticum Small Cow-wheat Rare 2,4-5
Woodland. Good populations in escarpment Hazel wood west of Creag Sgeanach; very scarce in woodland west of Kilcheran Loch; small population in Hazel wood at foot of raised beach cliff, Bagh Clach an Dobhrain.

Euphrasia officinalis sensu lato Eyebright Common 1-5
In a wide variety of grassland habitats. Apart from a record of *E. micrantha* at Port Ramsay (det. A. AMcGS) there is virtually no other information on segregates.

Odontites vernus Red Bartsia Occasional 1-5
Track and roadsides, damp grassland.

Rhinanthus minor Yellow-rattle Frequent 1-5
Grassland.

Pedicularis palustris Marsh Lousewort Frequent 1-5
Marshy places.

P. sylvatica Lousewort Frequent 1-5
Heaths and non-calcareous grassland.

OROBANCHACEAE

Orobanche alba Thyme Broomrape 2-3,5
Surprisingly rare in view of the abundance of Thyme in many places. Balure (W.A. Sledge, 1949); Killean Farm, seen in 1993 but not since; east of Tirlaggan; Dun Chruban.

LENTIBULARIACEAE

Pinguicula lusitanica Pale Butterwort Rare 1-3
Eroded areas in peaty flushes. Fennachrochan bay; south-west of Stronacroibh; Killean Farm.

P. vulgaris Common Butterwort Frequent 1-5
Wet peaty flushes and banks.

Urticularia vulgaris sensu lato Bladderwort Local 2-4
Lochs and fens. Loch Balnagown; fen below Argyll Cottage; Kilcheran Loch; Loch Fiart.

CAMPANULACEAE

Campanula rotundifolia Harebell Common 1-5
Dry grassland, ledges and rock fissures.

(*Lobelia dortmanna* Water Lobelia 3
A single plant in a peaty pond south of Creag an Fhithich. It could not be refound and was doubtless a short-lived introduction, perhaps by waterfowl. The main Lismore lochs are too calcareous for this species.)

RUBIACEAE

Sherardia arvensis Field Madder Verry rare 1
Dry rocky grassland. North end Lismore, S. Macpherson,

1965 (*Proc. BSBI*, 6, 243) and, perhaps the same site, one small colony near the passenger ferry jetty. (AAPS, c. 1979). Could not be located in 1994.

Galium boreale Northern Bedstraw Local 3-5
Dry calcareous grassland, outcrops and cliff ledges. Coastal cliffs north-west of Baleveolan and south-west coast including Bernera.

G. odoratum Woodruff Occasional 1-5
Rocky banks in woodland.

G. palustre Marsh-bedstraw Frequent 1-5
Marshes and wet grassland.

G. verum Lady's Bedstraw Common 1-5
Dry calcareous grassland, outcrops and cliff ledges.

G. sternerii Limestone Bedstraw Rare 2-4
Calcareous grassland. Killean Farm; quadrant 4(AAPS, 1969 - as *G. pumilum*).

G. saxatile Heath Bedstraw 1-5
Non-calcareous grassland and heath. Infrequent because of the shortage of these habitats.

G. aparine Cleavers Frequent 1-5
Among boulders and on margins of scrub. Mainly coastal.

CAPRIFOLIACEAE

Sambucus nigra Elder Occasional 1-3,5
Woodland margins and roadsides. Macvicar (1899) noted this as "undoubtedly planted". Obviously self-sown trees are widely scattered, for example Glas Dhruim and Bernera.

Lonicera periclymenum Honeysuckle Frequent 1-5
Woodland and cliff ledges.

ADOXACEAE

Adoxa moschatellina Moschatel Local 1-2,4
Shady places in coastal woodlands. Good populations at Glas Dhruim.

VALERIANACEAE

Valerianella locusta Common Cornsalad Rare 2,4
Dry rocky places. Killean Farm; 10 km. square 84 (AMcGS *et al.*, 1979) quadrant 4 (AAPS, 1969 and AAPS *et al.*, 1980); south of Lochan Treshtil but very scarce.

Valeriana officinalis Common Valerian Occasional 1-5
Stream-sides.

DIPSACACEAE

[*Knautia arvensis* Field Scabious
Formerly grew on field edge opposite the Old Schoolhouse but almost certainly not native. (L.J.M. Stewart pers. comm.)].

Succisa pratensis Devil's-bit Scabious Common 1-5
Damp grassland in a wide variety of habitats.

ASTERACEAE

Arctium minus subsp. *nemorosum* Wood Burdock Occasional 2-5
Base of raised beach cliffs, often in woodland and where sheep lie-up.

Cirsium vulgare Spear Thistle Common 1-5
Drier grassland and roadsides.

<i>C. palustre</i>	Marsh Thistle	Common	1-5
Damp pastures and flushes.			
<i>C. arvense</i>	Creeping Thistle	Common	1-5
Drier grassland and waste places			
<i>Centaurea nigra</i>	Common Knapweed	Common	1-5
Rough grassland and roadsides.			
<i>Lapsana communis</i> subsp. <i>communis</i>	Nipplewort	Frequent	1-5
Dry banks and ledges at the foot of raised beach cliffs. Rarely inland.			
<i>Hypochaeris radicata</i>	Cat's-ear	Common	1-5
Dry banks and outcrops.			
<i>Leontodon autumnalis</i>	Autumn Hawkbit	Frequent	1-5
Damp grassland and flushes.			
<i>L. hispidus</i>	Rough Hawkbit	Very rare	2-3
Unimproved grassland. Killean Farm.			
<i>*Tragopogon porrifolius</i>	Salsify	Very rare	3
Killean Farm. Origin unknown. Was formerly common in vegetable plot but probably lost here as a result of tree nursery development. Not seen in 1995.			
<i>Sonchus arvensis</i>	Perennial Sow-thistle	Rare	4-5
Coastal strand-lines. 10 km. square 84 (AMcGS <i>et al.</i> , 1979); Kilcheran; Eilean na Cloiche (P. Wormell, 1986); Bernera (P. Wormell, 1983).			
<i>S. oleraceus</i>	Smooth Sow-thistle	Rare	3-4
Weed of cultivation Killean Farm; waste ground near Bali-grundle (N); ledges of coastal cliffs at Port Kilcheran and to the south, scarce.			
<i>S. asper</i>	Prickly Sow-thistle	Frequent	1-5
Dry banks and ledges at the base of cliffs, mainly coastal.			
<i>Mycelis muralis</i>	Wall Lettuce	Very rare	5
Reported as growing at the base of a raised beach cliff, north-east Bernera, 1994. Confirmation desirable. It occurs at Port Appin on the mainland, some 14 km. to the north-east.			
<i>Taraxacum</i>	Dandelions	Common	1-5
In a wide range of habitats.			

The following segregates have been reliably recorded. Determinations are by either A.A. Dudman, A.J. Richards or AMcGS. The known area distribution is indicated (some records can only be assigned to 10 km. square 84) but at present this must be considered as very incomplete.

Section Erythrosperma			
<i>T. brachygossium</i>	(84) AMcGS, 1979		3
<i>T. lacistophyllum</i>			
Section Spectabilia			
<i>T. faeroense</i>		1-2,4-5	
Section Naevosa			
<i>T. maculosum</i>		2-3	
<i>T. naevosiforme</i>	(84) AMcGS, 1979		
Section Celtica			
<i>T. nordstedtii</i>		2-4	
<i>T. subbracteatum</i>		2	
<i>T. unguilobum</i>		2-5	
Section Hamata			
<i>T. hamatum</i>		3	
Section Ruderalia			
<i>T. cyanolepis</i>	(84) AMcGS, 1979		
<i>T. dahlstedtii</i>	(84) AMcGS, 1979		

Crepis paludosa Marsh Hawk's-beard Locally frequent 1-4
Wet places in woodland and by streams.

C. capillaris Smooth Hawk's-beard Rare or overlooked 2,4
Dry banks and rocky places. Achuaran; Balnagown; Killean Farm; coast north and south of Port Kilcheran.

Pilosella officinarum Mouse-ear Hawkweed. Common 1-5
Dry grassland, particularly in rocky places.

Hieracium Hawkweeds Common 1-5
Ledges of cliffs and disused quarries, particularly on coasts.

The following segregates have been reliably recorded. Older, dated, records were identified by Sell and West. Post 1986 records all determined D.J. McCosh or AMcGS. The known area distribution is indicated but at present this must be considered as very incomplete.

Section Vulgata

<i>H. cravoniense</i>		3
<i>H. vulgatum</i>		1-5
<i>H. rubiginosum</i>		3
<i>H. orcadense</i>	Achnacroish, 1963	2 or 3
<i>H. orithales</i>	AMcGS, 1969	4
<i>H. subhirtum</i>		4
<i>H. cymbifolium</i>	AMcGS, 1960 and 1969	4-5
<i>H. duriceps</i>		2

Section Oreadea

<i>H. sommerfeltii</i>		5
<i>H. ebudicum</i>		2

Section Cerinthoidea

<i>H. iricum</i>		2
<i>H. anglicum</i>		2-3,5
<i>H. ampliatum</i>		5
<i>H. herbridense</i>	Lismore, Watsonia 8, 97-120 (1970)	2-3
<i>H. shoobredii</i>		2-4

Section Subalpina

<i>H. petrocharis</i>	AMcGS, 1960	3,5
-----------------------	-------------	-----

Antennaria dioica Mountain Everlasting Local 2-5
Dry grassland and heath. Apparently absent at the extreme north end; most frequent in the south.

Gnaphalium uliginosum Marsh Cudweed Occasional 1-4
Damp tracks and roadsides.

**Inula helenium* Elecampane Unlocalised
BSBI field Meeting, 1963. (Proc. BSBI. 6, 194) Used to grow at the old powder magazine for Salen quarry, and may still do so (L.J.M. Stewart, pers. comm.).

Solidago virgaurea Goldenrod Frequent 1-5
Rocky banks, cliff ledges and woodland.

Aster tripolium Sea Aster Rare 1,3
Saltmarshes. Port Ramsay and Salen.

Bellis perennis Daisy Very common 1-5
Damp grasslands.

**Tanacetum parthenium* Feverfew Rare 1,4
Walls. Port Ramsay and Kilcheran

**T. vulgare* Tansy
10km square 84. AMcGS *et al.*, 1979.

[*Artemisia vulgaris* Mugwort Macvicar (1899). No other records].

Achillea ptarmica Sneezewort Occasional 1-5
Wet non-calcareous soils.

A. millefolium Yarrow Common 1-5
Drier grasslands.

Anthemis arvensis Corn Chamomile Very rare 2-3
Killean Farm. Cultivated areas.

<i>Chrysanthemum segetum</i>	Corn Marigold	Rare	2-3	A very attractive weed of arable land. Three plants in small barley field near Old Schoolhouse (1994); Killean Farm.
<i>Leucanthemum vulgare</i>	Oxeye Daisy	Infrequent	1-4	Roadsides and cliff ledges. Surprisingly infrequent and not seen at the south end of the island.
* <i>Matricaria discoidea</i>	Pineappleweed	Occasional	1-5	Tracks, farmyards and arable land. Occasional but sometimes abundant.
<i>Tripleurospermum maritimum</i>	Sea Mayweed	Infrequent	1-2, 4-5	Coastal rocks and shingle, unexpectedly infrequent.
<i>Senecio jacobaea</i>	Common Ragwort	Common	1-5	Dry banks and cliff ledges.
<i>S. aquaticus</i>	Marsh Ragwort	Common	1-5	Marshes and stream-sides.
<i>S. vulgaris</i>	Groundsel	Occasional	1-4	A weed of gardens, arable land and waste ground.
* <i>Doronicum pardalianches</i>	Leopard's-bane			On AAPS list for 10 km square 84. No other records.
<i>Tussilago farfara</i>	Colt's-foot	Rather rare	2-4	Damp waste and stony ground. Achnacroish; near Cameron Cottage; Clachan; coast near Frackersaig; Kilcheran area.
<i>Petasites hybridus</i>	Butterbur	Occasional	2-5	Stony stream-beds
<i>Eupatorium cannabinum</i>	Hemp-agrimony	Frequent	1-5	Wet ledges of raised beach cliffs. Very rare inland.
ALISMATACEAE				
<i>Alisma plantago-aquatica</i>	Water-plantain	Very local	4	Loch-side fen. Loch Fiart.
JUNCAGINACEAE				
<i>Triglochin palustre</i>	Marsh Arrowgrass	Frequent	1-5	Flushes and loch margins.
<i>T. maritimum</i>	Sea Arrowgrass	Occasional	1-5	Salmarshes, even where fragmentary.
POTAMOGETONACEAE				
Unless noted otherwise records for <i>Potamogeton</i> species were made by C.D. Preston and N.F. Stewart during a two day visit in July, 1990.				
<i>Potamogeton natans</i>	Broad-leaved Pondweed		2-5	Lochs and fens with open water. Loch Balnagown; Killean Loch (A.M.L. Brooks); Kilcheran Loch; Loch Fiart; lochan north-east of Dalnarrow.
<i>P. polygonifolius</i>	Bog Pondweed		1-5	Shallow water of loch margins, streams and wet ditches. The most frequent pondweed on Lismore. CDP and NFS recorded it in areas 3-5.
<i>P. coloratus</i>	Fen Pondweed		2-5	Shallow water of lochs, fens and slow-flowing streams where conditions are highly calcareous. Lochs Balnagown, Killean, Kilcheran, Fiart, and lochan north-east of Dalnarrow; also in stream north of Balygrundle (BHT).
<i>P. lucens</i>	Shining Pondweed		3-4	Deeper water of lochs. Killean Loch (A.M.L. Brooks); Loch Fiart.
<i>P. praelongus</i>	Long-stalked Pondweed		4	Deep water of lochs. Kilcheran Loch and Loch Fiart.
<i>P. perfoliatus</i>	Perfoliate Pondweed		3-4	Shallow to deeper water of lochs. Killean Loch (A.M.L. Brooks); Kilcheran Loch and Loch Fiart.
[<i>P. pusillus</i> Lesser Pondweed Records for Loch Balnagown (Macvicar, 1899), for the Lismore lochs as "abundant" (West, 1905) and for Lochs Kilcheran and Fiart (E.C. Wallace, 1949, BRC VC. list.) are presumed errors and probably referable to <i>P. berchtoldii</i> .]				
<i>P. berchtoldii</i>	Small Pondweed		2-4	Shallow water of lochs. Loch Balnagown; Killean Loch (A.M.L. Brooks); Kilcheran Loch; Loch Fiart (W.A. Sledge and E.C. Wallace, 1949).
<i>P. filiformis</i>	Slender-leaved Pondweed		2,4	Shallow water of loch margins. Loch Balnagown; Kilcheran Loch; Loch Fiart.
RUPPIACEAE				
<i>Ruppia maritima</i>	Beaked Tasselweed	Rare	4-5	Brackish ponds near sea. Achadun Castle; two sites south of Rubha da Uisge.
ARACEAE				
+ <i>Arum maculatum</i>	Lords-and-Ladies		Very rare	2 Bushy roadside bank near Whin House. A small but flourishing population. Far outside its normal range so probably introduced.
LEMNACEAE				
<i>Lemna minor</i>	Common Duckweed	Occasional	1-5	Shallow water of pools and ditches where there is little water movement.
JUNCACEAE				
<i>Juncus squarrosus</i>	Heath rush	Local	1-3,5	Wet heaths. The main populations are at the north end of the island. Elsewhere seen only near the Old Schoolhouse, at Killean Farm and on Bernera.
<i>J. compressus</i>	Round-fruited Rush	Rare	2-3	Damp gravel track, and roadsides. Cameron Cottage; near Baleveolan; near Baligrundle (N). First recorded by W.A. Sledge and E.C. Wallace, "west of Balnagown", in 1949. (Wats. 2, 55. 1951).
<i>J. gerardii</i>	Saltmarsh	Locally frequent	1-5	Saltmarshes, even where fragmentary.
<i>J. bufonius</i>	Toad Rush	Frequent	1-5	Damp tracks and other bare places.
<i>J. articulatus</i>	Jointed Rush	Frequent	1-5	Stony flushes and loch margins.
<i>J. acutiflorus</i>	Sharp-flowered Rush	Common	1-5	Wet grassland, particularly along coasts.
<i>J. bulbosus</i>	Bulbous Rush	Occasional	1-5	Rather bare and wet peaty places.
<i>J. effusus</i>	Soft-rush	Common	1-5	Wet pastures.
<i>J. conglomeratus</i>	Compact Rush	Occasional	1-5	Drier pastures.
<i>Luzula pilosa</i>	Hairy Wood-rush		2-5	Heathy banks and open woodland. Rather local and infrequent.

<i>L. sylvatica</i>	Great Wood-rush		
	Frequent and locally plentiful	1-5	
	Woodland banks and cliff ledges.		
<i>L. campestris</i>	Field Wood-rush	Common	1-5
	Basic grassland.		
<i>L. multiflora</i>	Heath Wood-rush	Frequent	1-5
	Non-calcareous grassland and heath. The two subspecies have not been investigated.		
CYPERACEAE			
<i>Eriophorum angustifolium</i>	Common Cottongrass	Occasional	1-5
	Peaty flushes and wet heaths.		
<i>E. latifolium</i>	Broad-leaved Cottongrass	Locally plentiful	1-4
	Base-rich flushes, mainly coastal.		
<i>E. vaginatum</i>	Hare's-tail Cottongrass	Rare	1,4
	Wet heaths. Port Ramsay area and west of Kilcheran Loch.		
<i>Trichophorum cespitosum</i>	Deergrass	Local	1-2
	Wet heaths. North end of Lismore; Eilean Dubh (P. Wormell, 1986).		
<i>Eleocharis palustris</i>	Common Spike-rush	Frequent	1-5
	Loch margins and shallow ponds.		
<i>E. uniglumis</i>	Slender Spike-rush	Rather rare	1,3-4
	Brackish coastal marshes. Port Ramsay; Port na Moralachd; Salen; Achadun; south of Port Kilcheran.		
<i>E. quinqueflora</i>	Few-flowered Spike-rush	Frequent	1-5
	Peaty flushes.		
<i>Schoenoplectus lacustris</i>	Common Club-rush		2-4
	Deeper water (1-2m.) of lochs. Loch Balnagown; Killeen Loch; Kilcheran Loch; Loch Fiart.		
<i>Isolepis setacea</i>	Bristle Club-rush	Occasional	1-2,4-5
	Bare wet places, for example, sides of ditches.		
<i>Blasmus rufus</i>	Saltmarsh Flat-sedge	Rare	1,3-4
	Saltmarshes, usually with some freshwater seepage. Port Ramsay; Port na Moralachd; Salen; Lochan Treshtil.		
<i>Schoenus nigricans</i>	Black Bog-rush		2-5
	Base-rich coastal flushes and raised beach cliffs where seepage of lime-rich water occurs. Often associated with tufa formations. Apparently absent on the north coast and on the east side south to Achnacroish. Locally plentiful elsewhere.		
<i>Cladium mariscus</i>	Great Fen-sedge		4
	Lochside fen. Kilcheran Loch.		
<i>Carex paniculata</i>	Greater Tussock-sedge	Locally plentiful	2-5
	Fens and mires. Occurring at all the island's lochs and frequently elsewhere.		
<i>C. paniculata</i> x <i>C. diandra</i> = <i>C. beckmannii</i>			2
	Loch Balnagown (J. Mitchell and AMcGS, 1984).		
<i>C. diandra</i>	Lesser Tussock-sedge		2-5
	Fens and base-rich mires. Occurring in the vicinity of all the island's lochs and quite frequently elsewhere.		
<i>C. otrubae</i>	False Fox-sedge	Occasional	1,3-5
	Damp ground among coastal rocks		
<i>C. remota</i>	Remote Sedge	Occasional	1-5
	Wet ground in woods and in other shady places.		
<i>C. ovalis</i>	Oval Sedge	Locally frequent	2-5
	Damp pastures and track-sides.		
<i>C. echinata</i>	Star Sedge	Frequent	1-5
	Wet pastures and flushes.		
<i>C. dioica</i>	Dioecious Sedge	Occasional	1-5
	Peaty flushes.		
<i>C. curta</i>	White Sedge	Rare	2,4
	Fens and swampy loch margins. Modified fen south-west of Clachan; Kilcheran Loch; Loch Fiart.		
<i>C. rostrata</i>	Bottle Sedge		1-5
	Edges of lochs and fens and wetter parts of mires. Frequent and often plentiful.		
<i>C. vesicaria</i>	Bladder-sedge	Very rare	4
	Edge of fen. North-east end of Kilcheran Loch.		
<i>C. sylvatica</i>	Wood-sedge	Frequent	1-5
	Damp shady ground in woodland.		
<i>C. flacca</i>	Glaucous Sedge	Frequent	1-5
	Flushed grassy banks and ledges of crags.		
<i>C. paucica</i>	Carnation Sedge	Occasional	1-5
	Wet heath and peaty flushes.		
<i>C. binervis</i>	Green-ribbed Sedge	Occasional	1-5
	Non-calcareous grassland and heaths.		
<i>C. distans</i>	Distant Sedge	Local	1,4-5
	Damp grassland among coastal rocks. Tidal island Port Ramsay; occasional south of Port Kilcheran in the east and Achadun in the west.		
<i>C. extensa</i>	Long-bracted Sedge	Rare	1,4
	Saltmarshes. Unlocalised, BSBI Field Meeting 1963 (<i>Proc. BSBI</i> , 6, 194); Port Ramsay; Slughan, one plant only; north of Lochan Treshtil.		
<i>C. hostiana</i>	Tawny Sedge	Frequent	1-5
	Basic flushes, particularly on coasts.		
<i>C. hostiana</i> x <i>C. viridula</i> subsp. <i>brachyrryncha</i>		Very rare	4
	Coast near Achadun. Conf. A.O. Chater.		
<i>C. hostiana</i> x <i>C. viridula</i> subsp. <i>viridula</i>		Very rare	1
	Damp turf among shore rocks on tidal island Port Ramsay. Det. A.O. Chater.		
<i>C. viridula</i> subsp. <i>brachyrryncha</i>	Long-stalked Yellow-sedge	Common	1-5
	Drier parts of fens and base-rich flushes. Rather common and locally plentiful.		
<i>C. viridula</i> subsp. <i>oedocarpa</i>	Common Yellow-sedge		2-5
	Damp peaty flushes. Apparently rather rare but probably under-recorded. Port na Moralachd (AAPS, 1985); Killeen Farm; quadrant 4 (AAPS <i>et al.</i> , 1980); coast below Fiart Farm; Kilcheran Loch; Bernera.		
<i>C. viridula</i> subsp. <i>viridula</i>	Small-fruited Yellow-sedge	Rare	4
	Damp and rather bare ground. Kilcheran Loch and Loch Fiart. (It should also occur at Port Ramsay where its hybrid with <i>C. hostiana</i> was collected).		

<i>C. pallescens</i>	Pale Sedge	Very rare	5	
Damp grassland. 10km. square 84 (AMcGS, 1979); Bernera.				
<i>C. caryophyllea</i>	Spring-sedge	Locally common	1-5	
Dry calcareous grassland.				
<i>C. pilulifera</i>	Pill Sedge	Occasional	1-5	
Dry non-calcareous grassland and heaths.				
<i>C. limosa</i>	Bog-sedge	Very rare	3	
Fen below Argyll Cottage.				
[<i>C. aquatilis</i> Water Sedge				
Lismore lochs "less abundant" (West, 1905). West is here making a comparison with certain lochs in the Loch Ness area. There are no modern records so the sedge either awaits rediscovery or, as seems more likely, it is now extinct].				
<i>C. nigra</i>	Common Sedge	Rather common	1-5	
Marshes and loch and stream margins.				
<i>C. pulicaris</i>	Flea Sedge	Frequent	1-5	
Flushes and wet ledges.				
POACEAE				
<i>Nardus stricta</i>	Mat-grass	Locally frequent	1-2,4-5	
Non-calcareous grasslands.				
<i>Festuca pratensis</i>	Meadow Fescue	Frequent	1-5	
Grasslands, mainly coastal.				
<i>F. arundinacea</i>	Tall Fescue	Apparently rare	2,4	
Loch shores. Loch Balnagown; Achadun area.				
<i>F. rubra</i>	Red Fescue	Common	1-5	
Grassland, particularly along coasts.				
<i>F. ovina</i>	Sheep's-fescue	Occasional or locally frequent	1-5	
Non-calcareous grassland and heathy places.				
<i>F. vivipara</i>	Viviparous Fescue	Rather rare	2,4-5	
Same habitats as <i>F. ovina</i> . Mainly in the south. Some records may be referable to viviparous forms of <i>F. rubra</i> .				
<i>F. filiformis</i>	Fine-leaved Sheep's-fescue	Occasional	1-3,5	
Same habitats as <i>F. ovina</i> .				
<i>Lolium perenne</i>	Perennial Rye-grass			
	Frequent, locally common		1-5	
Grasslands and waste places.				
<i>Cynosurus cristatus</i>	Crested Dog's-tail	Common	1-5	
Grasslands on better soils.				
<i>Puccinellia maritima</i>	Common Saltmarsh-grass	Occasional	1,3-5	
Saltmarshes, even where fragmentary				
<i>Briza media</i>	Quaking-grass		2-4	
Calcareous grassland and tolerant of both wet and dry sites. Local but sometimes plentiful as on the Tirefour coast and in the Salen area.				
<i>Poa annua</i>	Annual Meadow-grass	Frequent	1-5	
Tracks, garden ground and waste places.				
<i>P. trivialis</i>	Rough Meadow-grass	Frequent	1-5	
Damp grassland, particularly in woodland and other sheltered situations.				
<i>P. pratensis sensu lato</i>	Meadow-grass		1-5	
Grassland on better soils. Frequent, perhaps locally common. This is now treated as two separate species as follows but the status of each is not yet clear.				
<i>P. humilis</i>	Spreading Meadow-grass		1-5	
Recorded in all areas and probably the native species.				
<i>P. pratensis</i>	Smooth Meadow-grass		2	
Abundant in hay-field at Clachan and presumably sown. No doubt elsewhere and perhaps native in some parts.				
<i>Dactylis glomerata</i>	Cock's-foot	Common	1-5	
Rough grassland and roadsides.				
<i>Catabrosa aquatica</i>	Whorl-grass		3	
Recently formed pond at Killean Farm.				
<i>Glyceria fluitans</i>	Floating Sweet-grass	Frequent	2-5	
Shallow water of lochs, ponds and ditches where there is little water movement.				
<i>G. declinata</i>	Small Sweet-grass	Occasional	1-2,4	
Wet muddy places, for example rutted tracks and gateways.				
<i>G. notata</i>	Plicate Sweet-grass	Rare	4	
Loch margins and other very wet places. Achadun; Kilcheran Loch; Loch Fiart. Almost certainly in one or two other places but confirmation needed.				
<i>Melica nutans</i>	Mountain Melick	Very rare	5	
Ledges of raised beach cliffs. West coast below Druim Mor.				
<i>Helictotrichon pubescens</i>	Downy Oat-grass			
	Frequent and sometimes plentiful		1-5	
Dry calcareous grassland.				
<i>H. pratense</i>	Meadow Oat-grass	Very rare	4	
Habitat not known but presumably calcareous grassland. "South Lismore" (AAPS, 1969).				
<i>Arrhenatherum elatius</i>	False Oat-grass	Common	1-5	
Rough grassland and roadsides.				
* <i>Avena fatua</i>	Wild Oat	Very rare	3	
Arable ground. Killean Farm. Uncommon and not found every year.				
<i>Koeleria macrantha</i>	Crested Hair-grass	Locally frequent		
			1,4-5	
Dry calcareous grassland.				
<i>Deschampsia cespitosa</i> subsp. <i>cespitosa</i>	Tufted Hair-grass			
	Common		1-5	
Poorly drained grassland.				
<i>S. cespitosa</i> subsp. <i>parviflora</i>			4	
Woodland by Kilcheran Loch (A.G. Kenneth, 1984).				
<i>D. flexuosa</i>	Wavy Hair-grass	Locally frequent	1-5	
Non-calcareous grassland and heaths.				
<i>Holcus lanatus</i>	Yorkshire-fog	Frequent	1-5	
In a range of grassland habitats.				
<i>H. mollis</i>	Creeping Soft-grass	Rare	1-4	
Damp grassland in woods and other shady places. Slughan; Creag Sgeanach area; Killean Farm; quadrant 4 (AAPS et al., 1980).				
<i>Aira caryophyllea</i>	Silver Hair-grass		4	
Short calcareous grassland. Rare, but perhaps under-recorded. 10km square 84 (AMcGS, 1979); Kilcheran area.				
<i>A. praecox</i>	Early Hair-grass	Rather rare but widespread	1-5	
Dry shallow soils.				
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	Common	1-5	
In a wide range of grassland habitats.				



photo: B. H. Thompson

Lismore from Beinn Donn, Appin, looking south-west.
Port Appin below foreground; Mull hills distant beyond the Firth of Lorn; Morven at right across Loch Linnhe.



photo: Andrew Campbell / S.N.H.

Limestone grassland, south Lismore, looking north-east.



photo: A McG. Stirling

Rock Whitebeam (*Sorbus rupicola*)
On a limestone cliff, south-west Lismore.
Mature trees are usually inaccessible.



photo: A McG. Stirling

Rue-leaved Saxifrage (*Saxifraga tridactylites*)
An annual plant of soil-pockets on rock
outcrops and wall-tops.



photo: Andrew Campbell / S.N.H.

**Common Rock-rose (*Helianthemum nummularium*)
and Tutsan (*Hypericum androsaemum*)**
On the island of Bernera at the south end of Lismore.



photo: A McG. Stirling

Mountain Avens (*Dryas octopetala*)
A plant of short limestone grassland and outcrops.
Restricted to the south end of Lismore.

Phalaris arundinacea Reed Canary-grass Occasional 2-5
Wet bushy places.

Agrostis capillaris Common Bent
Frequent, perhaps locally common 1-5
Grassland.

A. stolonifera Creeping Bent Frequent 1-5
By lochs and pools and in other wet places.

A. canina sensu lato Bent Frequent 1-5
Now separated as *A. canina* (Velvet Bent) and *A. vinealis* (Brown Bent). Both segregates are known to occur but their relative frequencies have yet to be determined.

Alopecurus pratensis Meadow Foxtail Rare 3-4
Damp grassland on deeper soils. Killean Farm; one or two places in Kilcheran area.

A. geniculatus Marsh Foxtail Locally frequent 1-4
Wet pastures, particularly about gateways.

Phleum pratense Timothy Occasional 1-4
Damp grassland on deeper soils.

Bromus hordeaceus Soft-brome Rare 2-4
Dry grassland and road verges. Quadrant 2, unlocalised (J.H. Dickson, 1991); 10 km. square 84 (AMcGS, 1979); Killean Farm; roadside at Kilcheran Loch.

Bromopsis ramosa Hairy-brome Frequent 1-5
Well drained soils in shady woodland, particularly at the foot of raised beach cliffs.

Brachypodium sylvaticum False Brome Common 1-5
Shady banks in woodland and ledges of crags.

Elymus caninus Bearded Couch Rare 3
Shady banks in woodland and cliff ledges. On AAPS list (as *Agropyron caninum*); coast south of Achnacroish.

Elytrigia repens Common Couch 2-4
Foreshores, garden and waste ground. Few records but probably overlooked. 10 km. square 84 (AMcGS, 1979); Old Schoolhouse; Killean Farm; Kilcheran area.

Danthonia decumbens Heath-grass Occasional 1-5
Non-calcareous grassland.

Molinia caerulea Purple Moor-grass
Frequent, locally comon 1-5
Wet non-calcareous grassland in a range of situations.

Phragmites australis Common Reed 2-4
The most conspicuous component of the fens which fringe, at least in part, the four main lochs at Balnagown, Killean, Kilcheran and Fiart, often forming extensive beds. Rare elsewhere.

SPARGANIACEAE

Sparganium erectum Branched Bur-reed Frequent 1-5
Shallow water of lochs, ponds and water-logged ditches.

S. emersum Unbranched Bur-reed Rare 4
On peaty substrate in shallow water of lochs. Kilcheran Loch and Loch Fiart.

[*S. natans* Least Bur-reed "
In a few localities". (Macvicar, 1899 as *S. minimum*). This record probably relates to *S. emersum*].

LILIACEAE

Narthecium ossifragum Bog Asphodel Frequent 1-5
Peaty flushes and wet heaths.

Hyacinthoides non-scripta Bluebell Common 1-5
Woods, banks and cliff ledges

Allium ursinum Ramsons Common 1-5
Woodland, shady recesses in cliffs and among rock detritus.

**Narcissus pseudo-narcissus* Daffodil
10km square 84 (AAPS, AMcGS et al., 1979). All daffodils seen by the writer outside gardens had obviously been planted and nowhere could they have been regarded as naturalised.

IRIDACEAE

Iris pseudacorus Yellow Iris Common 1-5
Wet ground by ditches and streams, particularly on coasts.

**Crocsmia pottsii* x *C. aurea* = *C x crocsmiiflora*
Montbretia 1-4
Rarely established on road and stream-sides outwith garden ground: Port Ramsay; Cameron Cottage; Whin House; Killean Farm; Kilcheran.

ORCHIDACEAE

Epipactis helleborine Broad-leaved Helleborine Very rare 2
Hazel wood at foot of raised beach cliff. Port na Moralachd, scarce.

Listera ovata Common Twayblade Local 1-5
Damp woodland and occasionally in damp grassland in open situations. Plentiful in several places.

Hammarbya paludosa Bog Orchid Very rare 3
Sphagnum bog. Killean Farm. Very difficult to find and not seen every year.

Platanthera chorantha Greater Butterfly-orchid Very rare 1
Damp base-rich grassland. Port Ramsay.

P. bifolia Lesser Butterfly-orchid Rare 1-3
Wet peaty flushes, particularly where broken-up by erosion. Fennachrochan; Killean Farm; south of Sloc a 'Mhuilinn; near Baligrundle (N).

Pseudorchis albida Small-white orchid Very rare 2
Unimproved grassland. Killean Farm.

Gymnadenia conopsea Fragrant Orchid
Widespread and locally plentiful 1-5
Open situations in unimproved calcareous grass land and tolerating a wide range of moisture content. Widespread and locally plentiful.

Coeloglossum viride Frog Orchid Rare 1,5
Damp calcareous grassland. Apparently rare but easily overlooked if populations are small. Unlocalised, BSBI Field Meeting, 1963 (*Proc. BSBI*. 6, 194); Eilean Ramsay; Port Ramsay; Druim Mor, three plants only.

Dactylorhiza fuchsii Common Spotted-orchid Frequent 1-5
Damp grassland on deeper soils.

D. fuchsii x *D. pupurella* = *D. x venusta* 3
Fen north of Baligrundle (N), det AMcGS.

D. maculata subsp. *ericetorum* Heath Spotted-orchid
Common and locally plentiful 1-5
Damp grassland and heaths but also tolerant of quite basic conditions.

- D. incarnata* subsp. *incarnata* Early Marsh-orchid Frequent 1-5
Marshes and calcareous flushes. Frequent, particularly on coasts.
- D. incarnata* subsp. *coccinea* (Plate 3). Rare 2-4
Habitat as for subsp. *incarnata*. Port na Moralachd (AAPS and AMcGS, 1985); Killean Farm; coast near Sean Dun.
- D. incarnata* subsp. *pulchella* Rare 1,3
Habitat as for subsp. *incarnata*. Tidal island off Port Ramsay; fen north of Baligrundle (N).
- D. purpurella* Northern Marsh-orchid Occasional 1-5
Marshes and wet grassland.
- Orchis mascula* Early-purple Orchid Frequent 1-5
Calcareous grassland and ledges of crags.

CHAROPHYTES
Stoneworts

C.D. Preston and N.F. Stewart visited Lismore for two days in July, 1990, and recorded the following Stoneworts. The order is that used by Moore. J.A., 1986.

Only the briefest of notes is given on distribution, including their occurrence in the three major lochs of Balnagown, Kilcheran and Fiart.

Chara vulgaris var. *vulgaris*.
All three lochs and elsewhere.

C. vulgaris var. *longibracteata*.
Not seen in any of the major lochs but occurs elsewhere. Rare in Scotland.

C. vulgaris var. *papillata*.
Lochs Balnagown and Kilcheran. Rare in Scotland.

C. vulgaris var. *contraria*.
Lochs Balnagown and Kilcheran, and elsewhere

C. hispida var. *hispida*
Not seen in any of the major lochs but occurs elsewhere.

C. hispida var. *rudis*.
All three lochs and elsewhere. ("abundant at a depth of 25-35ft" G. West, 1905).

C. globularis var. *virgata*
All three lochs and elsewhere.

C. globularis var. *annulata*
Loch Fiart

C. aspera var. *aspera*
Loch Balnagown and elsewhere.

C. aspera var. *curta*
Lochs Kilcheran and Fiart, and elsewhere. Also recorded at Loch Balnagown by E.C. Wallace, 1949, as *C. desmacantha* (Wats. 2, 212). ("Carpeting the bottom of the lakes from 2 - 20ft". G. West, 1905, as *C. aspera* var. *desmacantha*). Rare in Scotland.

GAZETTEER

Apart from the exceptions marked with an asterisk the place-names used in the text appear on the three Ordnance Survey 1:25,000 Pathfinder maps which cover Lismore. Some of the names appear on the map (Figure 1) and, hopefully, all names used are included in the following gazetteer. The whole of the Lismore area falls within the 100km square NM(17) so this prefix is omitted from all the six figure grid references.

Achadun Bay	806.398	Fiart Farm	806.370
Achadun Castle	804.392	Frackersaig	826.403
Achnacroish	851.409	Glas Dhruim	870.457
Achuaran	878.443	*Hawthorn House	864.437

Achueran House	889.452	Inn Island	899.463
Allt a `Mhuilinn	872.447	Kilcheran	824.388
Argyll Cottage	842.413	Kilcheran Loch	828.394
Bachuil	863.437	Killandrist	856.426
Bagh Clach an Dobhrain	798.372	Killean (Farm)	848.418
Baileouchdarach	872.435	* Killean Loch	846.412
Baleveolan	847.421		
Baligrundle (N)	838.408	Lochan Treshtil	820.379
Baligrundle (S)	834.396	Loch Balnagown	860.426
Balimackillichan	859.437	(L. Baile a `Ghobhainn on map)	
Balnagown	856.419	Loch Fiart	809.376
Balure	865.432	Miller's Port	812.371
Balygrundle	839.401	*Old Schoolhouse	867.440
Barr Mor	815.388	Pladda Island	839.372
Bernera (Island)	795.393	Point	893.461
Brynalen	819.398	Port an Rubha	786.356
Cameron Cottage	851.425	Port Appin	906.454
Castle Coeffin	853.438	Port Kilcheran	826.386
Clachan	861.434	Port na Moralachd	866.450
Creag an Fhithich	834.404	Port nan Leadaig	826.406
Creag Island	835.371	Port Ramsay	882.454
Creag Sgeanach	866.444	Rubha Ban	868.461
Dalnarrow	793.361	Rubha da Uisge	791.356
Druim Mor	792.365	Rubha Fiart	783.357
Dun Chruban	792.360	Salen	832.411
Eilean Droineach	886.461	Sean Dun	845.399
Eilean Dubh	874.421	Sgeir an t-Sailein	838.419
Eilean Loch Osaicair	863.455	Sgeir nan Tom	887.477
Eilean Musdile	780.353	Sloc a `Mhuilinn	849.431
Eilean na Caorach	901.468	Slughan	869.454
Eilean na Cloiche	839.383	Stronacroibh	884.449
Eilean nan Gamhna	832.382	Tirefour (Castle)	867.429
Eilean Ramsay	881.459	Tirlaggan	843.410
Fennachrochan	874.451	Whin House	856.428

ACKNOWLEDGEMENTS

The writer would like to thank the farmers of Lismore for their tolerance of his wanderings about their island without which this paper would never have been written. In particular I am grateful to Alison Brooks for making available all the interesting plant records she has made at Killean, and elsewhere on Lismore, and for conducting me round the farm. Miss Lily Stewart of Hawthorn Cottage has also been a source of much valuable information resulting from an association with Lismore going back over sixty years. Both she and Alison found time to look through the draft with the result that some errors have been corrected and some additions made. I am also especially indebted to Dr J.H. Dickson and Mr A. McG. Stirling both of whom not only supplied plant records but also read through the draft and made many helpful comments.

REFERENCES

Anderson, J.G.C., Robertson, T. and Simpson, J.B. (1949). *The Limestones of Scotland*. Department of Scientific and Industrial Research. H.M.S.O., London.

Bowden, J.K. (1989). John Lightfoot; His Work and Travels. Kew and Pittsburgh.

Botanical Society of the British Isles. *Proceedings* 6, 194 and 243.

Carmichael, I. (1948). *Lismore in Alba*. Perth; privately published.

Darling, F.F. and Boyd, J.M. (1964). *The Highlands and Islands*. Col-

- lins New Naturalist, London.
- Dickson, J.H. (1994). The Yew Tree (*Taxus baccata* L.) in Scotland - Native or Early Introduction or Both? *Scottish Forestry* 48, 253-261.
- Dony, J.G., Jury, S.L. and Perring F.H. (1986). *English Names of Wild Flowers*. 2nd Ed. BSBI, London.
- Gillies, H.C. (1906). *The Place-names of Argyll*. David Nutt, London.
- Gordon, J. ed. (1845). *New Statistical Account of Scotland*.
- Kent, D.H. (1992). *List of Vascular Plants of the British Isles*. BSBI, London.
- Lightfoot, J. (1777). *Flora Scotica*. London.
- MacVicar, S.M., (1899). Plants of Lismore. *Annals of Scottish Natural History*, 36-40.
- Moore, J.A. (1986). *Charophytes of Great Britain and Ireland*. BSBI, London.
- Pearman, D.A., Preston, C.D. and Stewart, A. (1994). *Scarce Plants in Britain*. BSBI, ITE, JNCC, Peterborough.
- Perring, F.H. and Farrell, L. (1983). *British Red Data Books: 1. Vascular Plants*, 2nd Ed. Royal Society for Nature Conservation, Lincoln.
- Perring, F.H. and Walters, S.M. (1962). *Atlas of the British Flora*. Thomas Nelson & Sons, London.
- Rodwell, J.S. ed.(1991). *British Plant Communities. Vol2. Mires and Heaths*. Cambridge University Press, Cambridge.
- Rodwell, J.S. ed. (1992). *British Plant Communities. Vol. 3. Grassland and Montane Communities*. Cambridge University Press, Cambridge.
- Rodwell, J.S. ed. (1995). *British Plant Communities. Vol. 4. Aquatic Communities, Swamps and Tall-herb Fens*. Cambridge University Press, Cambridge.
- Rothero, G. and Thompson, B. (1994). *An Annotated Checklist of the Flowering Plants and Ferns of Main Argyll*, Argyll Flora Project.
- Sinclair, J. (1791-1799). *Statistical Account of Scotland. Vol. XX The Western Isles*.
- Slack, A.A.P. and Willis, D.A. (1986). *Plant List of North Lismore (NM84)* compiled for BBC "Doomsday" Project. Unpublished. (Referred to as "AAPS list").
- Stace, C.A. (1991). *New Flora of the British Isles*, Cambridge University Press, Cambridge.
- Turnock, D., et al. (1977). *The Lochaber Area*, Geographical Field Group, Nottingham.
- Watson, H.C. (1883). *Topographical Botany*, 2nd Ed., Quaritch.
- Watsonia*, Vol. 2, 43, 55-56 and 212. Vol. 8, 97-120.